Substance Use and the Alberta Workplace

Summary Report

AADAC Alberta Alcohol and Drug Abuse Commission
An Agency of the Government of Alberta

Price Waterhouse

OCCUPATIONAL HEALTH AND SAFETY
HERITAGE GRANT PROGRAM

92-03645/

SUBSTANCE USE AND THE ALBERTA WORKPLACE: THE PREVALENCE AND IMPACTS OF ALCOHOL AND OTHER DRUGS

Summary Report

January 1992

A Report Prepared By
Price Waterhouse

For
Alberta Alcohol and Drug Abuse Commission

Funded By
Occupational Health and Safety
Heritage Grant Program

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SUBSTANCE USE AND THE ALBERTA WORKPLACE: THE PREVALENCE AND IMPACTS OF ALCOHOL AND OTHER DRUGS

Summary Report

1. INTRODUCTION

Some wear hard hats and safety boots; some wear lab coats; some work in offices; some work outdoors; others drive trucks or operate heavy equipment; some teach school; some take care of children; others produce food. Everyday over 1.2 million Albertans go to work. The strength of the Alberta economy is largely dependent on their skills and productivity. Unfortunately, some people arrive at work hung over or impaired; some drink or take drugs during the work day. Work goes more slowly; sometimes workers, co-workers and even the public are at risk of injury. Occasionally, high profile workplace accidents happen. We know that most Albertans have a drink from time to time. Indeed, alcohol use is so widespread, we often do not notice it. On the other hand, drug use is less common and less accepted. Action to deal with workplace substance use must be based on a realistic understanding of the nature and scope of the problem. There is considerable information on substance use in the general population, and on how it affects someone's personal life. However, there has been little information on how many workers use these substances, how much they use and the effects of use on their work activities.

The Alberta Alcohol and Drug Abuse Commission (AADAC) initiated this research with funding from the Alberta Occupational Health and Safety Heritage Grant Program. The study was designed to assess the scope of the problem, and to assist in the development of appropriate preventive and remedial actions. The research creates an information base on which employers, unions, treatment providers, and other stakeholders can build appropriate and effective responses. Specific topics covered in the research included:

- How prevalent is substance use among the Alberta work force?
- Are there any work factors that may contribute to alcohol and drug use among the work force?
- What is the impact of alcohol and drug use among the work force?
- How serious do employees, employers and unions think the substance use problem is?
- How have employers and unions handled substance use problems in the Alberta workplace?

- What ideas do employees, employers, and unions have for coordinating industry, labour, government, and community responses to concerns about drugs and alcohol in the workplace?

The scope of the research was comprehensive. Price Waterhouse conducted three surveys. The largest of these was a telephone survey of over 2,000 people in the Alberta work force, including both those currently working and those unemployed but looking for work. It encompassed all major industries and occupational groups, and included owner-manager firms of up to 10 employees. In addition, Price Waterhouse conducted mail surveys of 325 employers (from firms of more than 10 employees) and 43 unions to obtain their perspectives on these issues. The consultants worked in close collaboration with a tripartite advisory committee comprised of AADAC staff, representatives from industry associations, and unions and representatives from Alberta Occupational Health and Safety.

This summary report begins by defining the dimensions of the substance use problem in the Alberta work force.[1] It examines the prevalence of both alcohol and drug use among members of the work force, and the various occupational and demographic factors associated with higher levels of use. It also assesses the personal problems some workers attributed to their own substance use. It then focuses on the effects of substance use in the Alberta workplace by examining the effect of substance use on occupational health, safety and productivity. The report then examines how co-workers, supervisors, managers and unions respond to substance use among the work force, including workplace policies such as assistance programs. The final section highlights suggestions for action to address the issues of substance use in the workplace.

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[1] Readers interested in more detail are referred to the main report., available from the Alberta Alcohol and Drug Abuse Commission, 7th Floor, 10909 Jasper Avenue, Edmonton, Alberta T5J 3M9; telephone (403) 427-4275; fax: (403) 427-2352.

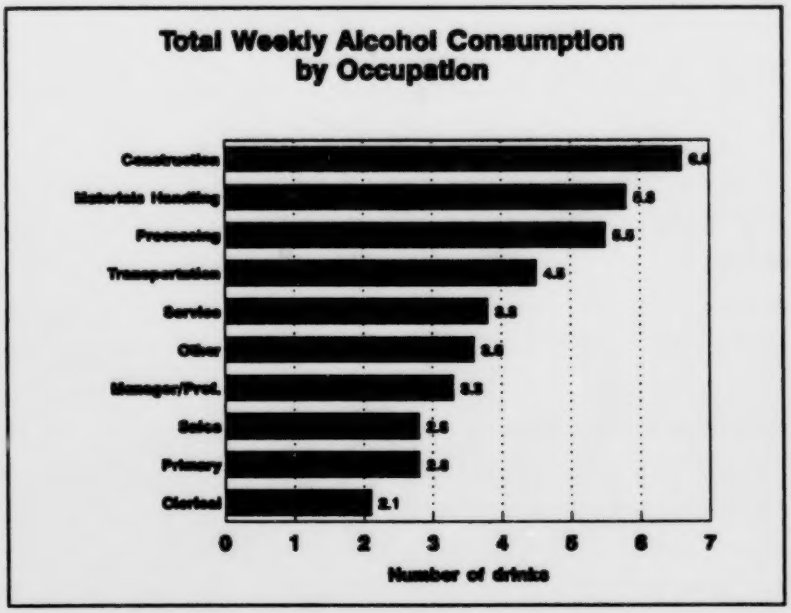
2. DIMENSIONS OF SUBSTANCE USE AMONG THE ALBERTA WORK FORCE

There are three main dimensions to the consideration of substance use as a problem in the workplace or among the work force. The first dimension to be considered is how many people use alcohol or drugs and how much they use. The second dimension is the problems people attribute to their substance use. However, in the context of work-related impacts, substance use itself is not a problem, only a potential problem. Substance use only becomes a workplace problem when it affects work performance. Thus, the third dimension of substance use is the impact on work performance.

2.1 Prevalence and Patterns of Substance Use Among the Work Force

When we talk of substance use among the Alberta work force, it is important to recognize that the "substance" of choice is alcohol. Four out of five people in the Alberta work force had at least one drink in the last 12 months. This is roughly the same as the proportion of current drinkers in the overall Alberta population. We can expect to find drinkers among almost every work group in Alberta. Drinkers are found in all occupations, although the proportion of drinkers differs somewhat. At the low end, three out of four people in service and in primary occupations drink at least occasionally.[2] At the other end, almost seven out of eight people in sales are current drinkers.

While there is little variation in the ratio of drinkers to non-drinkers across industries or occupations, there are considerable differences in the amounts and frequency of drinking. On average, workers in construction, materials handling and processing occupations drink more drinks a week than workers in other occupations. This is shown in the graph on the right. The average weekly alcohol consumption for the Alberta work force, in general, is 3.6 drinks.



Total Weekly Alcohol Consumption by Occupation

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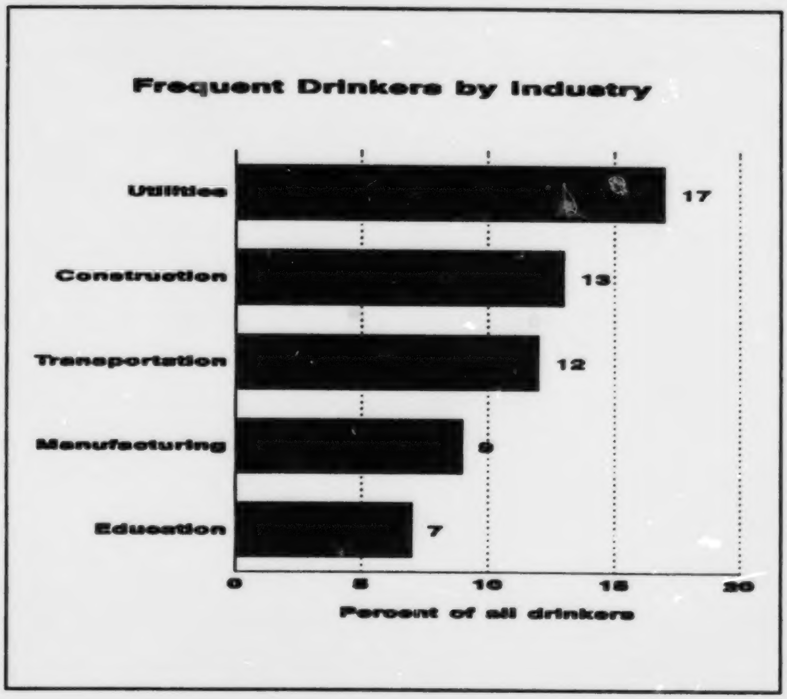
[2] Primary occupations include upstream oil and gas (i.e., extraction to refining), fishing/hunting/trapping and related occupations, forestry and logging operations, mining/quarrying, and farming.

Looking at consumption on an industry basis, we find that average weekly consumption is highest in the forestry/mining and health care sectors, and lowest in agriculture and social services.

Drinking frequency also varies by industry. The industries in which people have the greatest tendency to drink four or more times a week are utilities, construction and transportation, as is shown in the graph on the right.[3]



How much people drink on a typical drinking occasion also varies according to industry. People in the utilities[4], construction, and upstream oil and gas industries consume significantly more on a typical single drinking occasion than workers in other industries.

About one out of every 15 workers who drink reported having taken a drink during work hours (including meal breaks) within the last four weeks. This means over 60,000 Alberta workers drink during work hours at least once a month. The majority of these people take a drink during work hours once a week or less. A very small number reported drinking at work daily or almost daily. We estimated that about 1,700 Alberta workers have a drink during work hours almost every day. Workers in the higher risk occupations and industries (construction, transportation, forestry, upstream oil and gas, manufacturing) were more likely to report having taken a drink during work hours than were people in other industries. However, utilities workers were most likely to report drinking at work on a daily or almost daily basis. People who drink every day or almost every day were much more likely to report drinking during work hours. This confirms the idea that heavy consumption tends to be a risk factor for drinking on the job.

NOTE: Comparative figures for reported alcohol use during work hours in the last month are: 5.2% of total workforce or 6.5% of current drinkers only, as indicated above.

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[3] In other industries 5% or fewer workers reported frequent drinking, defined as drinking on 4 or more days per week.

[4] Utilities includes utility industries other than communications industries (i.e., the electric power systems industry, the gas distribution systems industry, the water systems industry, and other utility industries).

Advertisements and television programs often portray co-workers enjoying a drink together. Indeed, some management advisors say that "beer and pizza" for the work team boosts morale. In fact, we found that people seem to prefer drinking with friends and family rather than with co-workers. The work force respondents were almost three times as likely to report drinking with friends and family as with co-workers. However, over a third of workers reported being invited to have a drink by their co-workers over the previous four weeks. Suppliers also occasionally invite workers to have a drink, but supervisors very rarely invite workers to have a drink.

Drinkers are somewhat less common in small workplaces (four employees or less) than in larger ones. Three out of four workers in small workplaces are current drinkers, compared with four out of five in bigger (50 or more employees) workplaces. People who drink more heavily are somewhat more likely to work for large employers (100 or more employees). However, heavy drinkers are found in all sizes of workplaces.

Heavy Drinkers

Most people in the Alberta work force drink moderately. Over half of the work force who drink do so once a week or less. The typical worker generally drinks 2.9 drinks on each occasion, and a total of 3.6 drinks a week. Only one in 20 drinkers reported drinking more than seven drinks on a single occasion in the last 12 months. About two-fifths of drinkers report never having had five or more drinks on a single occasion in the last year. However, an equal number reported drinking heavily (five or more drinks at a time) about once every two months. One in ten workers drinks heavily at least once every month.

We defined heavy drinkers to include both those drinking heavily on a single occasion and those who regularly consume higher than average levels. We estimate that less than 2% of the Alberta work force have drinking patterns that fit this definition of heavy drinkers. By comparison, about 6.3% of the Alberta work force report drinking patterns that we have defined as regular, moderate to heavy drinkers. Each of these drinking patterns can pose potential problems.

Exhibits 1 and 2 present profiles of two types of heavy drinkers.

The heaviest drinkers in terms of total consumption are defined as those consuming 21 or more drinks per week, and are profiled in Exhibit 1.

Exhibit 1

Profile of a Very Heavy Drinker

- **male**
- **less than 25 years old**
- **never married**
- **construction or materials handling**
- **high school education or less**

Exhibit 2 on the right profiles another set of workers who regularly drink a moderate to heavy amount (8 to 20 drinks per week).

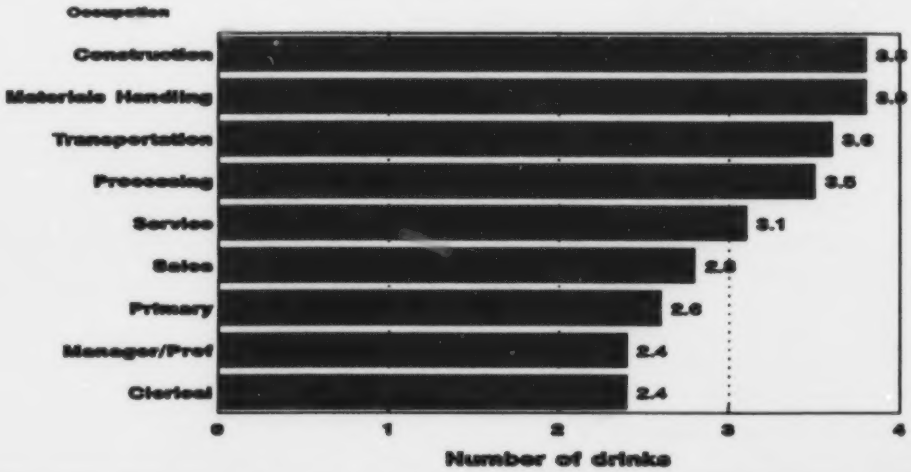
While relatively few people match these profiles absolutely, each of the characteristics (age, occupation, gender, marital status) are associated with the drinking type.

Exhibit 2

Profile of a Regular, Moderate to Heavy Drinker

- **male**
- **over 45 years old**
- **separated**
- **manufacturing**
- **completed trade school**

Most people drink moderately. The average person drinks 2.9 drinks on a typical drinking occasion. In general, blue-collar workers consume more drinks on a single occasion than other drinkers, as shown in the graph below.[5] Processing, construction, transportation and other trades all drink more than the average person each time they sit down to drink.



Average Number of Drinks Consumed on a Typical Drinking Occasion, by Occupation

Construction and materials handling workers are also more likely to drink five or more drinks on an occasion.

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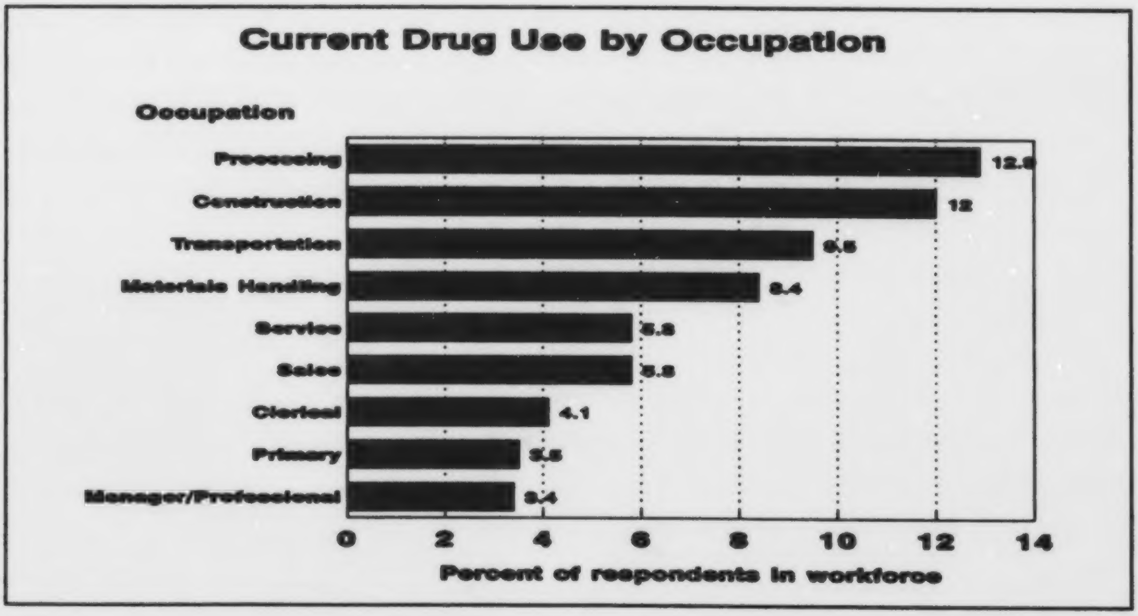
[5] Blue-collar workers are defined as those in the following occupations: primary, processing, construction, transportation, and materials handling. Other workers are defined as those in the following occupations: manager/professional, clerical, sales, and service.

Looking at drinking patterns by industry rather than occupation provides further understanding. Because of the high proportion of construction workers, it is not surprising to find the industry includes a relatively high proportion of both types of heavy drinkers. However, processing workers replace transportation workers in the top three in terms of likelihood of drinking five or more drinks at a time. On average, workers in the utilities and construction industries drink heavily (five or more drinks) at least every two months. This is considerably more often than the pattern in other industries. Those in agriculture and social services industries drink heavily less than twice a year, on average.

Drug Users

By comparison to alcohol, illicit drug use is much less common among the work force. Although over a third of the work force reported that they have used drugs at least once in their lives, less than one out of 16 people in the work force reported that they used drugs in the last 12 months. With the typical workplace having five employees, we estimate that about one out of 60 workplaces would include a person who uses drugs on a daily basis.

The occupational pattern of current drug use is shown in the graph below.[6]



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[6] Current drug users are defined as those having used an illicit drug at least once in the last 12 months.

Marijuana is the most commonly used illicit drug, with 85% of current drug users in the Alberta work force only using marijuana. Almost two-thirds of the current drug users in the Alberta work force use drugs less than once a month. Half of the remaining drug users use drugs one to three times a month. Daily or almost daily use of drugs is rare. We estimate that less than 1,800 people in the work force in Alberta use drugs on a daily or almost daily basis. Very few work force respondents report having used drugs during work hours. On this basis, we estimated that fewer than 6,000 Alberta workers had used drugs at work in the last 12 months. Use of drugs on the job was reported by more workers in the construction industry than any other industry. No matter what industry, people who use drugs while at work tend to do so with other people.

Almost all drug users also drink. More importantly, people who both drink and use drugs are more likely to be frequent drinkers and heavy drinkers. People who both use drugs and drink reported drinking heavily about twice every month, while other drinkers reported heavy drinking (five or more drinks at a time) an average of every two to three months.

Medication Use

The use of medications, such as cough syrups, cold tablets or allergy medication, is much more common than that of illicit drugs. About 27% of the work force reported taking cold or allergy medication over the last four weeks. However, just over a third of these people report taking these medications while at work or before going to work. In most cases, there is no problem posed by the use of such medications. In fact, an argument can be made for the benefit of taking such medications, if they allow the worker to be reasonably productive in spite of a cold or allergies. However, some occupations require people to be very alert and attentive. In these cases, medications that lead to drowsiness may cause problems. Fortunately, the frequent use of cough/cold/allergy medications is most commonly reported among managerial/professional and clerical workers. Use of these medications at work or immediately before work is very rare among people in transport occupations.

The use of painkillers, tranquillizers or sleeping pills is less common than that of cold or allergy medications, with 14% of the work force respondents reporting having used painkillers/tranquillizers or sleeping pills in the last four weeks. Manufacturing and health care industries reported relatively more users of these medications, but frequent use was relatively evenly distributed across sectors.

Use of stimulants was extremely rarely reported.

NOTE: Comparative figures for reported illicit drug use during work hours in the last 12 months are: 0.5% of total workforce, as indicated above, or 7.7% of current drug users only.

Factors Associated with Substance Use

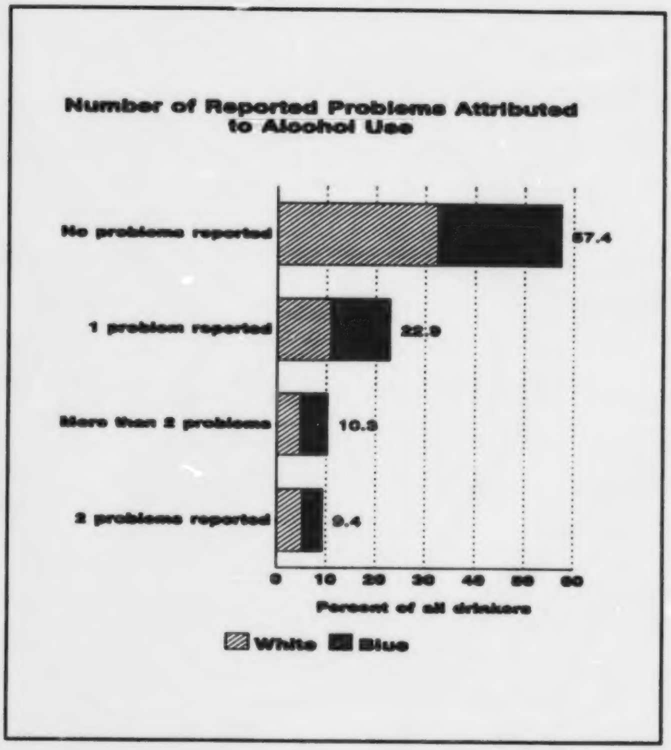
Research such as this cannot uncover causes of substance use. Survey research can point out what characteristics of workers or workplaces are associated with heavy consumption patterns or problems. This research confirmed other surveys that found both alcohol and drug use are related to the age, gender and education of the users. Thus, for example, we found that younger people tended to drink or use drugs more heavily and more often than older people. Men rather than women are more likely to be heavy users. People with a trade school education or with high school education tended to drink more than those with other levels of education. Of course, all of these characteristics are also related to occupation. In turn, occupation relates to industry. We thus wanted to find out how much of the consumption patterns we had found could be explained purely on the basis of demographic factors. We found that demographic factors explained only 10% of the differences in drinking patterns reported.

Some work design characteristics are positively associated with higher levels of alcohol consumption. In particular, shift work, job-related travel, working at a remote work site, and boredom on the job are associated with higher than average levels of drinking. The first three of these work designs are similar in that they impinge on the time or scheduling of a worker's social or family life. However, workers themselves do not attribute substance use problems to these work design characteristics. Nevertheless, the link between work situation and consumption should encourage employers to consider these potential negative impacts when designing jobs.

A worker's sense that a job is extremely stressful, while widely believed to be linked to substance use, was not found to be associated with higher levels of consumption. People who perceived their jobs to be extremely stressful were no more likely to drink heavily than other people. Nevertheless, helping workers find effective and appropriate ways to cope with perceived job stress may be useful in controlling substance use. It may also benefit other workers.

2.2 Personal Problems Attributed to Substance Use

From the perspective of the individual workers, the use of drugs or alcohol becomes a problem when it leads to personal or performance problems. Successful intervention and treatment of substance abuse requires that the individual user accept the need to address a problem. We thus explored the extent to which alcohol or drug users considered that they had problems associated with their substance use.[7] About 42% of all the drinkers in the work force reported at least one personal problem related to their alcohol use. About 20% of all drinkers (an estimated 192,000 people in the Alberta work force) reported having at least two personal problems that they themselves attributed to alcohol use.



About 18% of current drug users (about 14,000 people in the Alberta work force) attribute two or more personal problems to their drug use. Blue-collar workers reported somewhat higher levels of problems than did white-collar workers. Reporting problems attributed to alcohol use was highly correlated with alcohol consumption. People who are heavy drinkers are much more likely to report problems. Drug users were just as likely as drinkers to report problems, but people who both used drugs and drank heavily were very likely to report problems. The most commonly reported problems were similar for drug users and drinkers.

Workers in agriculture, education and financial services were **least** likely to report problems related to their alcohol use.[8] Workers in forestry/mining, utilities, and upstream oil and gas were most likely to report such problems. Although we found no relationship between the length of time a person had been with a certain employer and their consumption patterns, we did find that people with shorter time in their jobs were more likely to report having had problems they themselves attribute to substance use.

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[7] The list of problems considered included: traffic violations, being able to consume more than others, problems with family/friends or co-workers, trying to cut down on substance use, being annoyed by people telling them to cut down, feeling guilty about substance use, using alcohol or drugs as an "eye-opener", being unable to remember what happened after drinking or taking drugs, legal or financial problems, and problems on the job due to substance use.

[8] These sectors also show lower levels of consumption.

More than one out of every six drinkers reported having tried to cut down on his/her drinking.[9] Drug users were somewhat more likely than alcohol users to have tried to cut down. However, in both cases, trying to cut down was the most commonly reported problem. Feeling guilty about drug use was relatively more common than feeling guilty about alcohol use. This may simply reflect the societal tolerance for alcohol use. The relatively high identification with "trying to cut down" suggests a possible motivation for self-referral to an Employee Assistance Program (EAP) or other treatment programs.

More than one out of seven drinkers reported problems with family or friends due to alcohol use. Marital status related to the number of problems reported, with separated and never married persons more likely to report problems with substance use. Analysis of alcohol consumption patterns also showed that those who were separated tended to be heavier drinkers. These findings combine to suggest that broad brush EAP/MAP (Member Assistance Program) programs may be useful in reaching people with family problems linked to substance use.

Problems with family and friends were less extensively reported by drug users than drinkers. Drug users were also more likely to report feeling annoyed by people telling them to cut down on their substance use, with blue-collar drug users more likely than white-collar users to feel annoyed. Blue-collar drug users were also more likely than white-collar users to report using drugs as an eye-opener. On the other hand, white-collar drug users were more likely to report a legal or financial problems related to their drug use.

2.3 Workplace Impacts of Substance Use

We measured the impact of substance use on the workplace by defining a series of discrete workplace performance problems or "incidents", and measuring how often these occur. The surveys encompassed a range of performance problems, with the list developed through focus groups and interviews conducted in the preparatory stage of the research. We found that the incidents reported by the work force tended to cluster into four groups that differ in severity, as shown in the Table 1.

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[9] This is one of the questions asked from the popular 4 item "CAGE" questionnaire, widely used to screen for substance abuse problems.

Table 1
Factor Analysis of Workplace Incidents Attributed to Substance Use

Low Profile Productivity Problems	Problems Leading to Supervisory Action	Security Problems Leading to Longer-term Supervisory Action	Health and Safety Problems
Worked very slowly due to impairment Made a lot of mistakes due to being drunk or high Arrived at least an hour late for work Missed a day of work due to substance use Had conflict with boss or co-worker due to substance use	Been assigned other duties for the day due to being drunk or high Been sent home from work due to being drunk or high Been caught using alcohol on the job	Been dismissed due to a substance use problem Caught stealing company or client property Been suspected of sabotage	Drunk or high on the job and had an accident that resulted in damage to equipment or property Drunk or high on the job and had an accident that resulted in injury to the worker Been reassigned for a longer period due to substance use problems

The first cluster of incidents accounts for over two-thirds of all incidents reported. These incidents tend to have a relatively low profile in an organization. For example, someone working slowly because he/she is mildly impaired may go unnoticed by co-workers or managers. Despite the low profile, we found this set of performance problems to be the most widespread, and thus most likely to affect each workplace in Alberta. Action to deal with substance use at this stage may serve to prevent extremely serious problems.

The next three clusters of incidents collectively account for about a third of all incidents reported, with each cluster roughly of similar magnitude. The second cluster shows some supervisory notice and immediate action; for example, sending a worker home for the day because he/she is drunk or high. The third set shows a longer-term reaction on the part of management. The fourth set reflects performance problems that pose serious health, safety or security risks.

Safety

Much of the prior research on substance use in the workplace looked at safety-sensitive positions, such as those in the transportation sector. The underlying concern is that work in these occupations requires a worker's full attention at all times. A slight level of impairment, a level that might result in an office worker making more mistakes or working slowly, can have much more severe consequences in certain occupations. Because of the historical pattern of accidents and fatalities, there is particular concern about alcohol and drug use impacts in sectors such as construction, transportation and manufacturing. As will be discussed below, we found that substance use was generally heavier in these sectors than in others. However, accidents were only rarely reported as attributable to substance use. Indeed, less than 1% of respondents reported that a worker had been injured because he or she was impaired on the job. Moreover, those workers who reported these incidents also said they occurred infrequently.

Employers and unions also reported few, if any, safety-related incidents associated with substance use. Nevertheless, there remains considerable concern about safety risks associated with substance use. The high social and economic costs of workplace accidents mean that any factors affecting safety are treated very seriously. Respondents in the union survey emphasized the health and safety concerns associated with substance use. Although they reported relatively few workplace injuries attributable to substance use, employers and unions concurred that there is a safety risk associated with substance use.

Just under one out of every five workers indicated that, if they did not perform their jobs well, there was a good chance of injuring themselves or a co-worker.[10] There are strong differences between blue-collar and white-collar workers in this regard. Over half of all blue-collar workers consider that there is a moderate or significant safety risk associated with poor performance. However, people in jobs they themselves considered risky, were no more likely to be light or heavy, frequent or infrequent drinkers, than those in apparently less risky jobs. In other words, we found no evidence that people modify their drinking patterns based on their own perceptions of risks associated with their jobs. This suggests that it would not be useful to promote a moderation of drinking patterns based solely on the risk of work injury. On the other hand, programs aimed at identifying and dealing with absenteeism or tardiness could be effective in identifying substance use problems before they can result in a workplace accident or injury.

Absenteeism and Low Productivity

Absenteeism is the most widespread impact of substance use in the Alberta workplace. The table below summarizes the occurrence of various situations in which a worker is absent for part or all of the work day due to a substance use problem. In several of these cases, the root cause of the absenteeism may go unnoticed by management or co-workers. For example, when a worker arrives late, management or co-workers would likely notice the tardiness but may not realize it is due to a hangover. By comparison, supervisors (and potentially co-workers) would be aware of a worker being sent home due to impairment or a hangover. Thus, the estimate of late arrivals is conservative.

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[10] In fact, each year roughly one in twenty workers in Alberta is injured seriously enough for a lost time claim.

Table 2
Reported Absenteeism Attributed to Substance Use
(percentage of respondents to each survey)

Incident	**Reported awareness of the incident**		
	Work force	**Employers**	**Unions**
A worker:			
arrived late for work	11.4	27.1	30.8
missed a day of work	13.5	28.9	39.5
was sent home from work due to apparent impairment	23.1	8.4	10.5
was sent home from work due to apparent hangover	24.1	6.8	16.2
was dismissed due to a substance use problem	17.0	11.1	21.1
took extended leave due to a substance use problem	11.6	8.1	N/A

Where people reported a performance problem due to substance use, we followed up with questions on the frequency of the particular incidents. Again, the absenteeism and low-profile productivity problems were most frequent. The absenteeism impacts of substance use were relatively similar across occupations, industries, and sizes of employers.

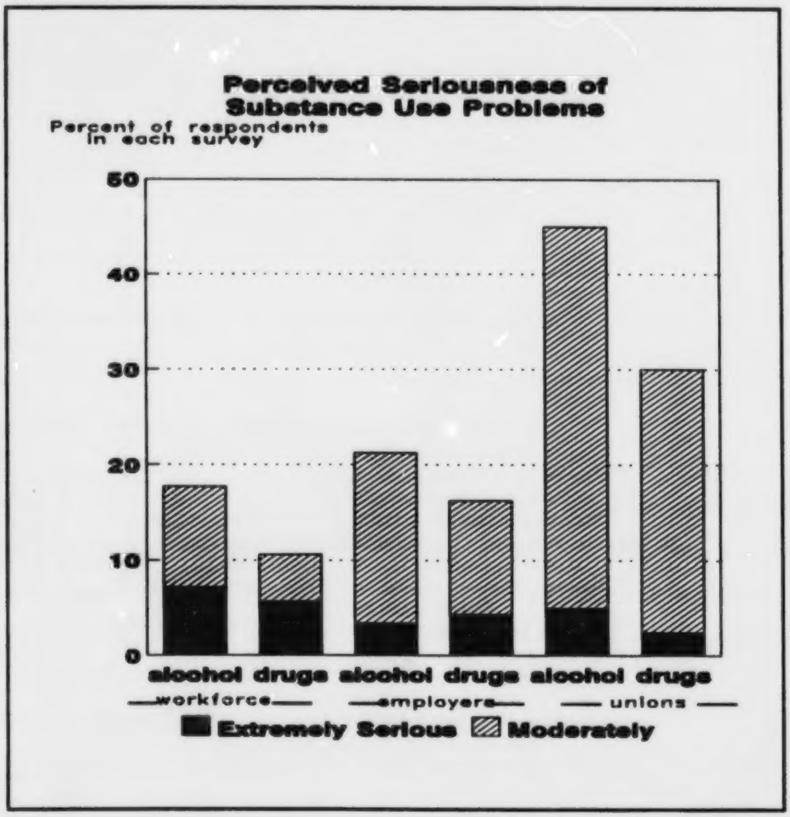
The costs associated with absenteeism attributed to substance use include the value of wages, disruption of the work team, reduced productivity and out-of-pocket expenses. However, owners and managers surveyed focused predominantly on the value of the wages paid to the absent worker. We thus conservatively estimated the costs of absenteeism to Alberta employers by counting only the value of the wages paid to the absent or tardy worker. In total, the annual cost to the Alberta economy of workers absent/tardy due to substance use is approximately $400 million. A typical workplace with five employees could expect their annual cost to be $1,140. If profit margins are in the range of 3%, this means that almost $40,000 in additional revenues would have to be earned to offset the costs. Lateness alone due to substance use is estimated to cost this typical five-person workplace $270 annually. It probably costs about $430 a year in time lost when workers who arrive at work impaired or hung over are sent home. However, keeping an impaired worker at work is a false economy. The risk of accidents or, at a minimum, low productivity is also costly.

Another incident that employers, unions and workers themselves reported with comparable frequency was that of an employee being dismissed. From a productivity perspective, this means the employer must recruit and train a new employee.

3. REACTIONS AND RESPONSES

People spend a large part of their waking hours in the workplace. How the employers and unions react to behaviours that signal drug or alcohol problems may affect the speed with which an individual gets appropriate treatment.

3.1 Recognition of the Scope of the Problem

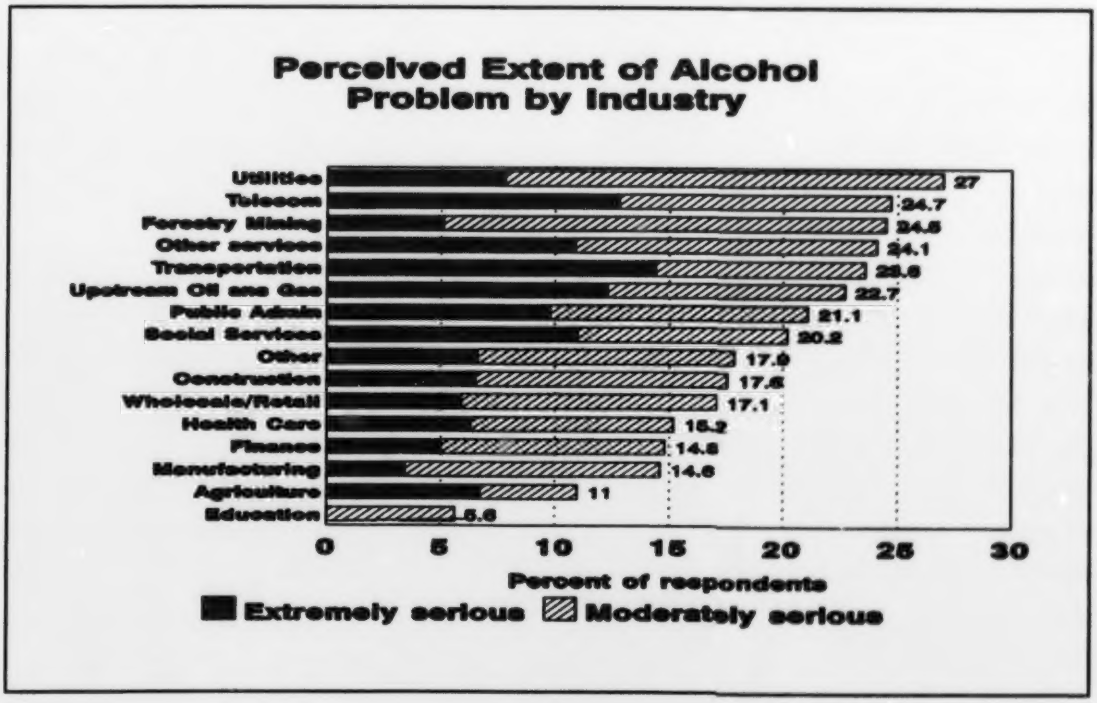


Despite widespread media attention to drug use, respondents in all three surveys expressed the view that alcohol use, was a more serious workplace problem than drug use, reflecting that alcohol use is in fact much more pervasive than drug use and thus touches on many more work sites. Employers and unions generally seem to consider the substance use problems to be more serious than do the average people in the work force. Of course, employers and unions typically have a broader perspective on workplace issues than do individual employees. Problems in the workplace are drawn to their attention. Employers and unions agree with the work force respondents that alcohol use is a greater problem than drug use. Union representatives tended to consider the substance use problems as more serious than did employers.

People in different sectors of the work force perceive the extent of the problem differently. Moreover, the perception among the work force of the seriousness of the alcohol and/or drug problem does not always coincide with reported levels of consumption. For example, people in both the transportation and construction sectors reported relatively heavy alcohol use. However, only 6.5% of people in the construction sector considered alcohol use to be an extremely serious workplace problem. By comparison, 15% of respondents in the transportation work force considered alcohol use to be extremely serious problem. The transportation sector has undertaken action focused on substance use. This may have served to heighten awareness of the issue.

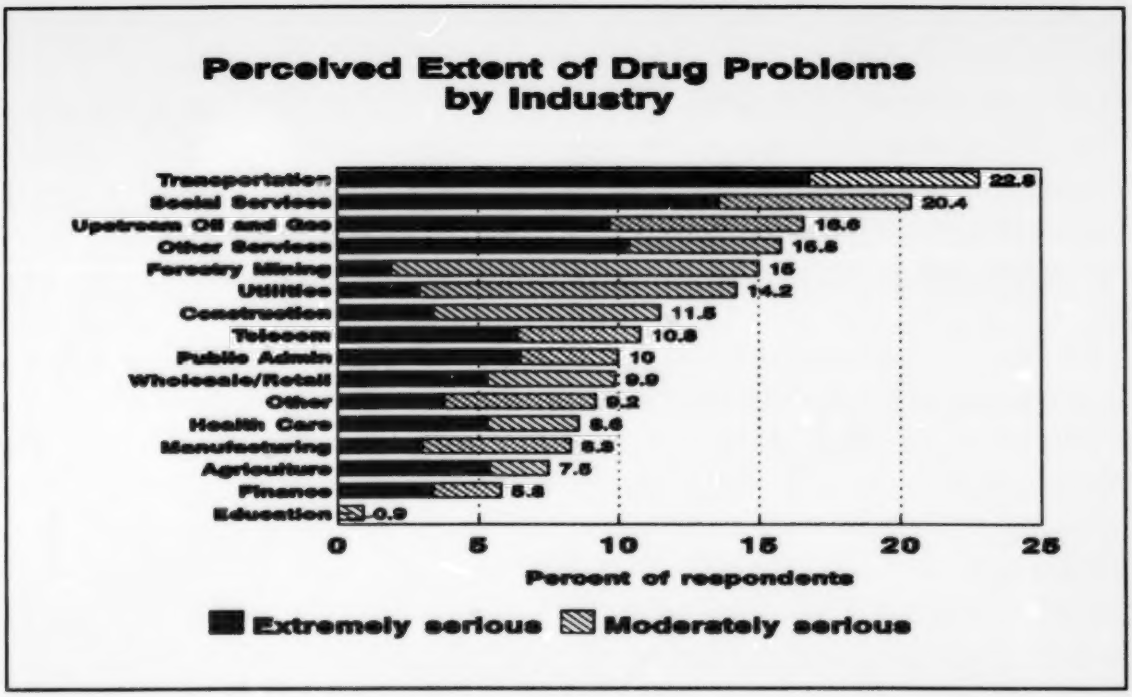
The sectoral patterns in consumption, coupled with the sectoral differences in the perception of the problems suggest the possible benefit of following sectoral lines in communicating information and developing action plans.

Almost one in four workers reported knowing a co-worker with an alcohol problem, and just under one in twelve people reported knowing someone with a drug problem. Despite the widespread contact with people perceived to have alcohol use problems, the majority considered alcohol use not to be a serious problem **in their own workplace**, as shown in the graph below.



Perceived Extent of Alcohol Problem by Industry

Less than one out of five workers surveyed indicated that alcohol use was a moderate to extremely serious problem in their own workplace. About half as many people (one in ten) considered drug use to be a moderate to extremely serious problem in their own workplace, as shown in the next graph.



Those people who actually know a co-worker with a substance use problem were more likely to regard the overall issue of substance use in the workplace as extremely serious. This pattern is more pronounced in people's attitude to drug use compared with alcohol use. Alcohol use is acknowledged to be common and many people know someone with an alcohol problem. When we consider the actual prevalence and patterns of drug use and alcohol use among the work force, it seems that people take the drug problem more seriously than they take the alcohol problem.

Both unions and employers contended that substance use is more severe in their industries as a whole than among their own employees or members. This sense that substance use is a problem "for others" is reinforced when employers and unions look at the range of human resource related concerns they face. They generally do not put substance use issues at the top of their agendas. This finding poses a challenge in framing information and communication programs to industry. A message that exaggerates the impacts of substance use in the workplace is not likely to be seen as credible. Audiences may regard it as describing "someone else's problems." In contrast, a message that emphasizes the more pervasive "sub-clinical" symptoms of substance use may be more effective in getting the issue on the agenda for action. It would also help managers and union leaders to recognize these symptoms.

To gain a better understanding of the level of concern about substance use, we asked employers and unions to compare the issue with other issues on their agendas. Employers indicated that work force training and development was their predominant concern, while unions ranked job security as their major concern. Neither employers nor unions included substance use among their top three concerns. However, unions ranked workplace health and safety as a significant concern. Those who are trying to get substance use on employers' agendas may want to emphasize the performance and productivity impacts of substance use. Similarly, the worker health aspects of the substance use issue are more likely to gain union interest.

Some Alberta employers have established policies that require individuals to report a co-worker with a substance use problem. In order to understand how people deal with co-workers with a perceived substance use problem, we posed the situation of discovering that someone "you work with" has such a problem. We found that two out of three people would either give the person advice directly or would refer their colleague for counselling. The availability of an EAP program in the workplace did not affect this pattern. About one out of seven people said they would not interfere. A small proportion said they would avoid working with the person, or protect him/her from getting caught by the supervisor. Both these behaviours have the risk of "enabling" the continuation of the problem.

Those respondents who actually know a co-worker with a substance problem were more likely to indicate they would not interfere. They were less likely to indicate they would offer direct advice. It is possible that these respondents had already tried the other tactics, and determined that they were not effective in solving the problem.

3.2 Employers' Reactions

Almost two-thirds of employers reported they would take a progressive discipline approach in dealing with an employee with a substance use problem. Over 60% of employers reported that their reaction to an employee with a substance use problem would be to refer the individual for professional counselling. Somewhat fewer relied on supervisory counselling. Only a very small number indicated they would do nothing.

Both union and employer surveys explored the type of disciplinary action considered reasonable following specified incidents, assuming this was a first occurrence. In virtually all cases, the majority of employers and unions considered that a warning was the most appropriate response. However, union respondents favoured a warning in some circumstances where employers favoured one-day suspensions. Unions and employers both reported more severe consequences from accidents involving drug use compared with alcohol use. Given that alcohol use is much more pervasive in the work force and acknowledged as such, this discrepancy is important. Employers and unions may inadvertently be sending a message of greater tolerance for alcohol abuse by not reacting as strongly to alcohol-induced problems as to drugs.

With disciplinary actions common as a reaction to the discovery of substance use, we asked both employers and unions about the appropriateness of certain disciplinary actions in specified circumstances. Table 3 contrasts employer and union responses on four such incidents. As expected, both employers and unions report more severe disciplinary consequences of incidents affecting health and safety.

Table 3
Employer and Union Disciplinary Actions Considered Appropriate for Substance Use Incidents
(percentage of respondents to each survey)

Incident		No action	Warning	Suspension of <1 day	Suspension of 1 day to 1 week	Suspension of >1 week	Dismissal
Employee arrived impaired	Employers	0.0	20.0	56.9	12.3	0.0	10.8
	Unions	10.5	50.0	28.9	5.3	0.0	5.3
Employee arrived hung over	Employers	13.8	64.6	16.9	3.1	0.0	1.5
	Unions	47.4	52.6	0.0	0.0	0.0	0.0
Employee involved in accident involving alcohol and resulting in injury	Employers	1.6	6.3	7.8	21.9	6.3	56.3
	Unions	13.2	18.4	7.9	10.5	13.2	34.2
Employee involved in accident involving drugs and resulting in injury	Employers	1.6	4.8	6.3	19.0	6.3	61.9
	Unions	10.5	18.4	5.3	10.5	13.2	39.5

Faced with an employee with an **ongoing** substance use problem, half the managers included in the work force survey reported that they would refer the individual for professional counselling. Small business owner-managers were somewhat less inclined to make such referrals and more likely to choose a progressive discipline approach. Only a small minority of managers considered dismissal to be a viable first option. This supports findings in the survey of employers. More than half the employers would grant leave with pay for employees undergoing treatment. As would be expected, larger employers were more likely to have such a policy. However, employers in the same industries tend to have similar policies to deal with substance use in the workplace.

Employers who considered substance use a more serious problem were more likely to have established formal policies on the matter. Moreover, employees working in an organization with substance use policies also tended to consider substance use to be a more serious problem. This suggests that the existence of formal policies heightens awareness of problems with substance use.

Both employers and unions reported that written policies on substance use typically included prohibiting substance use in the workplace and provision for sick leave for persons undergoing treatment. Between a quarter and a third of unions and employers reported having policies for training supervisors and/or workers in recognizing and dealing with substance use problems. Employers who provide a smoke-free workplace were more likely to have policies on alcohol or drug use. Only 15% of the work force reported that their employers have drug testing programs. Those working for larger employers were more likely to report such programs. This supports the finding that only 4% of employers reported having drug testing policies. Where they exist, drug testing programs typically include pre-employment testing. About 60% of the drug testing programs include testing on supervisory referral following a performance problem or an accident or incident. Of the small group of employers with drug testing, the majority indicated that testing programs are at least somewhat effective in reducing substance use.

About a third of work force respondents report having access to an EAP or a MAP, with those working for larger employers (100 or more employees) and in unionized workplaces more likely to have access to such programs. Just over half of employers who employ 100 or more people report having EAPs. Agriculture is the industry least well covered by EAP programs, not a surprising finding given the owner-managed nature of the sector. However, as the incidence of reported problems and consumption levels is also low in this sector, the limited access to assistance programs is less of an issue.[11] People working in the small- and medium-sized businesses in other sectors, particularly higher risk sectors such as construction or transportation, are more likely to have an unmet need for an EAP/MAP. The EAP/MAPs in Alberta are predominantly "broad brush" programs, dealing with a wide variety of problems or concerns. In about two-thirds of the cases, both employees (members) and their families are eligible for the assistance program.

Less than a quarter of the employers without EAPs attributed the lack of an EAP to affordability. The most common reason for not having an EAP is that they feel they do not need one. However, the incidence of workplace problems and the prevalence of heavy substance use is spread quite evenly across large and small employers. Given that a small business often complains about difficulties retaining skilled workers, the investment in an EAP may well pay off. We found that per employee costs of EAPs varied widely. There may be cost-effective ways for small businesses to provide such services to their workers, including pooling their resources with other small businesses in their communities.

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[11] This is not to suggest that the economic situation facing farmers may not manifest itself in other personal or social problems which could benefit from the counselling typically associated with an assistance program.

4. DIRECTIONS AHEAD

The mandate of this study did not include specific recommendations or detailed action plans. However, ideas and suggestions for action emerged from all phases of the research. A majority of work force respondents expressed the view that more needs to be done to deal with workplace problems posed by substance use. There seems to be a strong preference for educational actions (prevention) over treatment actions. The most commonly recommended action was for more education of workers, managers and supervisors in recognizing and dealing with substance use. There is a general agreement that employers should take the lead, but should involve employees in these initiatives.

Although a majority in all occupations indicated more needs to be done, those in managerial, professional, sales or service occupations were much more likely to indicate more needs to be done. In comparison, those in transportation, processing, materials handling, and construction were less likely to ask for more action. In effect, we see a blue-collar/white-collar split on the question of needing further action. The concern lies in the fact that the consumption patterns we discovered indicate that the blue-collar workers are more at risk. It is possible that these workers consider that enough is already being done. However, this finding may make it more challenging to target action to those sectors that show more risk of substance use problems.

Nevertheless, a sectoral approach would appear logical, given the consistent variations by industry and occupation. Alberta Occupational Health and Safety has experience with a sectoral approach to workplace safety (Partners program). Similarly, there are industry safety education associations that might be interested in helping to develop networks within sectors for sharing information and ideas. Only a small minority of respondents consider that government should take the lead in action to deal with substance use in the workplace. Rather, there is a preference for employer sponsorship or for joint employer-employee sponsored actions. This preference fits with the sectoral "partnering" model. Rather than defining a master initiative that would attempt to be all things to all people, encouraging and supporting sectoral "self-help" initiatives would allow for programs that suit the differing workplace situations across industries in Alberta.

The sectoral approach is also valuable in framing the issues in the context of productivity and competitiveness. The most widespread effects of substance use in the workplace are relatively low profile ones: absenteeism and low productivity. Addressing the issue when these problems manifest themselves will also serve to prevent more serious problems, including problems related to workplace safety.

** ** **

Substance Use and the Alberta Workplace

Final Report

AADAC Alberta Alcohol and Drug Abuse Commission
An Agency of the Government of Alberta

Price Waterhouse

OCCUPATIONAL HEALTH AND SAFETY
HERITAGE GRANT PROGRAM

Errata

Page 39: The labels in Table 2.27 "Medication Use by Gender" should appear in the following order: Painkillers/tranquillizers; Cough/cold/allergy mediations; Stimulants.

Page 62: Clarification of comparative figures for reported alcohol use during work hours in the last month: 5.2% of the total workforce, or 6.5% of current drinkers only, as indicated.

Page 64: Clarification of comparative figures for reported illicit drug use during work hours in the last 12 months: 0.5% of the total workforce, as indicated, or 7.7% of current drug users only.

SUBSTANCE USE AND THE ALBERTA WORKPLACE: THE PREVALENCE AND IMPACTS OF ALCOHOL AND OTHER DRUGS

Final Report

January 1992

A Report Prepared By
Price Waterhouse

For
Alberta Alcohol and Drug Abuse Commission

Funded By
Occupational Health and Safety
Heritage Grant Program

SUBSTANCE USE AND THE ALBERTA WORKPLACE: THE PREVALENCE AND IMPACTS OF ALCOHOL AND OTHER DRUGS

Final Report

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SUBSTANCE USE AND THE ALBERTA WORKPLACE: THE PREVALENCE AND IMPACTS OF ALCOHOL AND OTHER DRUGS

Final Report

1. INTRODUCTION

Some wear hard hats and safety boots; some wear lab coats; some work in offices; some work outdoors; others drive trucks or operate heavy equipment; some take care of children; others teach school; while still others produce food. Everyday, over 1.2 million Albertans go to work. The strength of the Alberta economy is largely dependent on their skills and productivity. Unfortunately, some people arrive at work hung over or impaired; some drink or take drugs during the workday. Work goes more slowly; sometimes workers, co-workers and even the public are at risk. Occasionally, high profile accidents happen. The high profile incidents draw attention to the issue of the use of alcohol and drugs among the Alberta work force. However, there remains a question of how big a problem alcohol and drug use is.

We know that most Albertans have a drink from time to time. Indeed, alcohol use is so pervasive, we often do not notice it. On the other hand, drug use is less common, less accepted. However, in both cases, there is a lack of information on the usage levels and the effects of use on the work force. There is widespread belief among many Albertans, industry groups, and government leaders and officials that substance abuse represents a costly and growing problem that undermines the safety and productivity of the Alberta workplace. Earlier research by Alberta Occupational Health and Safety indicated that substance use was only rarely implicated in workplace fatalities. However, the low tolerance for any workplace risks meant that more detailed understanding of the impacts of substance use among the work force was needed.

The Alberta Alcohol and Drug Abuse Commission (AADAC) thus initiated this research into the prevalence and impact of alcohol and drug use on the Alberta workplace, with funding from the Alberta Occupational Health and Safety Heritage Grant Program. The study was designed to assess the scope of the problem, and to assist in the development of appropriate preventive and remedial actions. The research will establish an information base on which employers, unions, treatment providers, and other stakeholders can build appropriate and effective responses. AADAC established a tripartite advisory group of employers, unions, and government representatives to guide the research and assist in the development of recommendations. (Appendix A lists representatives to guide the research and assist in the development of recommendations. (Appendix A lists the members of the advisory group.) Price Waterhouse was contracted to conduct the research. In the course of the research, the tripartite advisory committee met four times, reviewing the research methodology and the survey instruments, discussing the initial findings, and helping to shape the structure and style of the report. The insights and experience of the committee members were very valuable in each of these stages.

The study began with an exploratory investigation of the impact of alcohol and drug use on the Alberta workplace and the refinement of the proposed research methodology. A literature search and review of published reports and studies was conducted, and interviews and focus groups were held with policy makers, researchers, and representatives from various industries and unions (see Appendix B). Information gathered in this first phase of the project was used to develop a detailed research methodology. Phase 2 of the study involved developing the survey instruments and conducting three separate surveys.

The first and most important survey in the research was a telephone survey of over 2,000 people in the Alberta work force, covering all major occupational groups and industries. People currently employed and those unemployed but looking for work or on temporary workers' compensation were included. Also included were owner-managers of firms with up to 10 employees. The telephone interviews were conducted between August 9 and September 16, 1991. We called households at random and then methodically selected one member of that household. We were careful to ensure that we covered all major occupations, making additional calls to reach representatives of less common occupations. The telephone interviews included questions about an individual's own use of alcohol, drugs and other medications, about any personal problems due to substance use, about perceived problems in the workplace, and the employer's response to problems. Some basic information such as age, education, and work experience was also included so that we could see how these factors related to substance use. We used a computer-assisted telephone interviewing system that customizes interviews. For example, only those individuals who said they had a drink in the last 12 months were asked questions about their level of drinking.

The other two surveys provide a broader perspective on the reactions and responses to alcohol and drug use in the Alberta work force. These surveys were aimed at a sample of Alberta employers and Alberta union representatives. Unlike the work force survey, these were mail surveys. Employer representatives (of firms of more than 10 employees) were sent a 15-page questionnaire, and union representatives were sent a 13-page questionnaire. The questions focused on their perceptions of the scope of substance use in their industries and workplaces, their policies and programs to deal with substance use, and their views of what further action might be needed.

The detailed methodology of the research and survey response rates are presented in Appendix C. A breakdown of the sample sizes and response rates for each of the surveys is presented in the table below.

Survey Component	Sample Size	Responses	Response Rate
Work force	2,000	2,007	>100%
Employer	849	325	38%
Union	228	43	19%

Disappointment in the response rate in the mail survey of unions prompted the researchers to conduct follow-up telephone solicitation of further survey returns. This increased the response rate somewhat. Indeed, union responses continued to trickle in at the time the final report was being drafted. Respondents contacted explained that they had been very busy in handling various negotiations and grievances, and did not have the opportunity to deal with the survey. However, they did express interest in receiving a copy of the results. A breakdown of the occupations and industries of respondents is included in Appendix C, and definitions of the occupational and industry breakdowns are included in Appendix F. Occupations that interviewers could not readily code to an occupational group were recorded as "other" and subsequently recoded. Only eight responses could not be coded to an occupation and were left as "other."

The general aims of this research were to determine the prevalence of alcohol and other psychoactive drug use by Alberta workers, and the effects of their use or abuse of these substances on the workplace. Specific topics covered included:

- the extent of substance use occurring in and outside of Alberta work sites and key situational factors that may contribute to work site-related alcohol and drug consumption;
- the range and nature of perceived workplace impacts associated with the use of alcohol and drugs by workers;
- the perceptions of employees, employers and unions on the relative seriousness of these impacts across industry sectors and sub-industries in terms of work performance, workplace safety, and health;
- the perceptions of employees, employers and unions on the availability, adequacy, and desirability of existing responses and programs to mitigate the negative impacts of substance use on the workplace; and
- suggestions on improving and better coordinating industry, labour, government, and community responses to concerns about drugs and alcohol in the workplace.

This final report presents and analyzes the findings of the three surveys.[1] It covers a very large amount of information. The following breakdown of the contents of the report will guide readers in locating topics that most concern them.

Section 2
Prevalence of Substance Use

This section of the report presents an overview of the prevalence of substance use among the work force by:

- profiling the current drinkers, drug users, and users of medications;
- comparing the results of this survey to other similar surveys;
- identifying factors that affect substance use among the Alberta work force;
- identifying how employment status and demographic factors relate to substance use;
- outlining how heavy users are different from other workers; and
- discussing workplace implications.

Section 3
Patterns of Substance Use

This section of the report presents an overview of the patterns of substance use by:

- outlining frequency of substance use;
- describing levels of consumption;
- identifying when people use substances, including substance use during work hours; and
- discussing workplace implications.

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[1] Findings are reported at significance levels of $p<.05$.

Section 4
Situational Factors Related to Substance Use

This section of the report presents an overview of the work situation factors related to substance use by:

- assessing how the availability of substances near Alberta workplaces may affect substance use;
- identifying the various workplace norms regarding substance use;
- identifying the work design characteristics that workers, employers and unions consider to influence substance use; and
- discussing implications for managers and unions.

Section 5
Impacts of Substance Use

This section of the report discusses substance use impacts by:

- identifying the perceived risks associated with substance use in the work force;
- describing personal problems attributed to substance use;
- profiling the workers who report more problems associated with substance use;
- outlining the impacts of substance use in the workplace;
- describing employers' and unions' levels of concern about the effects of substance use in the workplace; and
- estimating the cost of performance problems related to substance use.

Section 6
Workplace Reaction and Responses to Substance Use

This section of the report presents an overview of the reaction and responses to substance use by:

- discussing the perceived extent of the substance use problem in Alberta workplaces;
- comparing concern about substance use to other concerns;
- identifying how people react to co-workers with a substance use problem;
- outlining initial employer reaction to the recognition of an employee's substance use problem;
- identifying how employers react to an employee with an ongoing substance use problem;
- identifying where workers, employers and unions look for help with substance use problems;
- outlining typical workplace policies on substance use; and
- discussing the need for further action and the preferred types of action.

Section 7
Concluding Remarks

This final section of the report recaps the major findings of the research and highlights the implications for employers, unions, government and, of course, for the work force itself.

Appendices

Appendix A presents a list of the members of the research advisory committee.

Appendix B presents the findings of the background literature research, interviews and focus groups done for the study.

Appendix C outlines the methodology developed for conducting the research. It also includes a profile of the Alberta workplace developed from information gathered from Statistics Canada reports and Alberta Labour reports, and a comparison of the population profile to that of the sample.

Appendix D presents the sampling estimations for the research.

Appendix E provides copies of the three survey instruments used in conducting the research.

Appendix F provides a glossary of terminology used in the report.

Appendix G provides a bibliography of the literature reviewed in the background research portion of the study.

The above appendices have been bound separately.

Section 2
Prevalence of Substance Use

This section of the report answers the following questions:

Section 2.1 - Drinking

Who are the current drinkers?
How are heavy drinkers different from other workers?
How do the results of this survey compare with other similar surveys?
How does employment status relate to drinking?
What demographic characteristics are associated with drinking?
What are the workplace implications of the prevalence of alcohol use?

Section 2.2 - Drugs

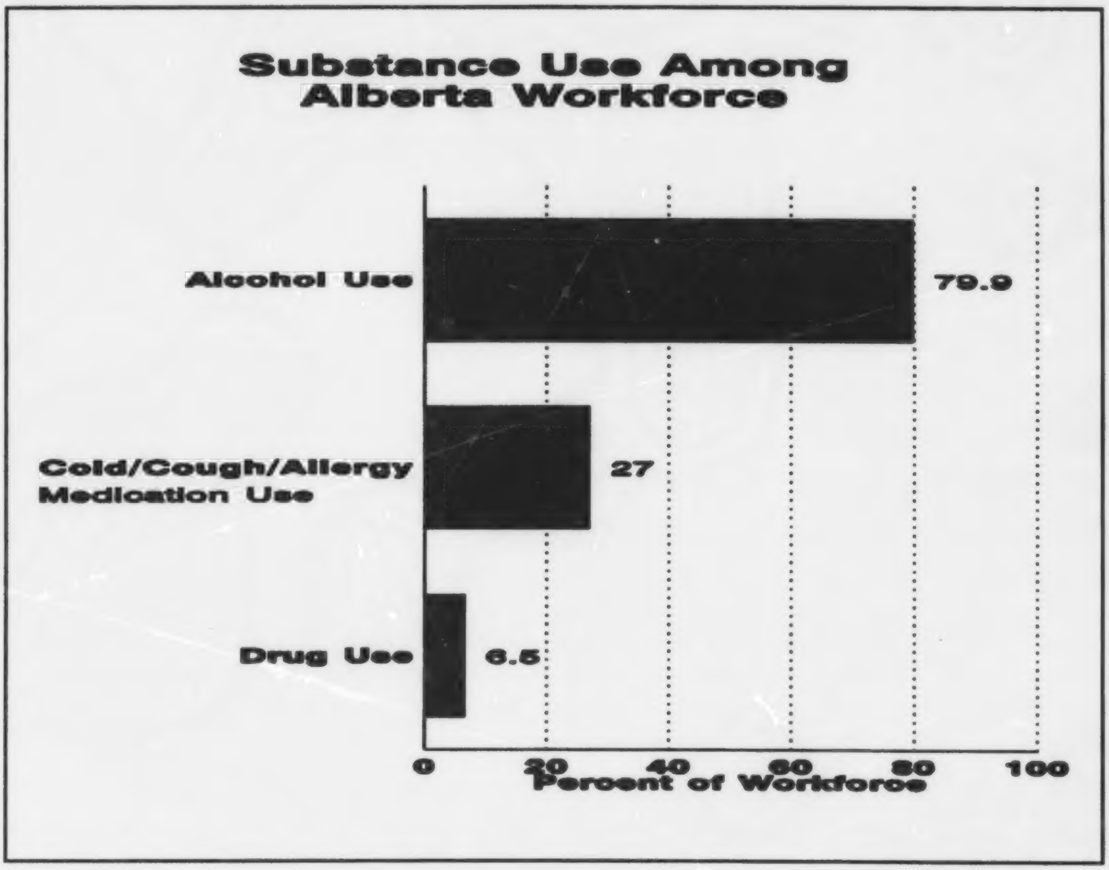
What is the drug of choice of Alberta workers?
Who are the current drug users?
How does employment status relate to drug use?
What demographic characteristics are associated with drug use?
Do drug users also drink?
What are the workplace implications of the prevalence of drug use?

Section 2.3 - Medications

How common is worker use of medications?
Is there an industry pattern in medication use?
Do users of medications also drink or use drugs?
What demographic factors affect use of medications among the Alberta work force?
How does employment status relate to use of medications?
How are frequent users of medications different from other workers?
What are the workplace implications of medication use?

2. PREVALENCE OF SUBSTANCE USE

The substance of choice among the Alberta work force is alcohol. About four out of every five Alberta workers had a drink in the last 12 months. Moreover, there are drinkers in every occupation and industry, even though some industries and occupations have relatively more heavy drinkers. Drug use is more limited. Less than one out of 16 workers used illicit drugs in the last year. The use of medications, including medication use during or just prior to work hours, is more widespread, with medications for colds, coughs or allergies most commonly used. This section of the report assesses the extent of substance use among various sectors in the Alberta work force, focusing in turn on drinking, drug use, and the use of medications. The aim is to delineate the groups or types of Alberta workers most likely to use these substances.



2.1 Drinking

Who are the current drinkers?

Drinking is widespread across the Alberta work force, with approximately 80% of the work force classed as current drinkers.[2] This is roughly the same proportion of drinkers as found in the total Alberta population.[3] Drinkers and non-drinkers are found in relatively similar proportions across occupations, as illustrated in Table 2.1. Service occupations report the lowest proportion of current drinkers (74%), while sales occupations report the highest proportion of current drinkers (86%). Processing, transportation and managerial/professional occupations are just about average in terms of their proportions of drinkers and non-drinkers.

Table 2.1
Current Drinkers by Occupation
(percentage of work force in occupation)
n=2,007

Occupation	Percentage of workers who are current drinkers
Sales	86.4
Construction	84.3
Clerical	82.3
Materials handling	81.7
Processing	80.5
Transportation	80.4
Manager/professional	78.6
Primary[4]	75.5
Service	74.2
TOTAL	79.8

Drinkers are also somewhat more concentrated in certain industries compared to others. While 80% of the work force as a whole are current drinkers, over 85% of all workers in upstream oil and gas (i.e., extraction to refining), forestry/mining, and finance are current drinkers. By comparison, fewer than 75% of workers in agriculture, education, social services, and health care are current drinkers. This pattern is shown in Table 2.2.

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[2] The survey followed the lead established by previous researchers and defined "current drinkers" as those who reported consuming a drink of alcohol within the last 12 months. A drink was defined to include a standard bottle of beer, a 1.5-ounce drink of liquor, a 4-ounce glass of wine, or an 8-ounce cooler.

[3] Health and Welfare Canada, National Alcohol and Other Drugs Survey, 1990.

[4] Primary occupations include upstream oil and gas (i.e., extraction to refining), fishing/hunting/trapping and related occupations, forestry and logging operations, mining/quarrying, and farming.

Table 2.2
Current Drinkers by Industry
(percentage of work force in industry)
n=2,002

Industry	Percentage of workers who are current drinkers
Upstream oil and gas	91.8
Finance	88.6
Forestry/mining	87.6
Construction	84.2
Wholesale/retail	83.2
Utilities	83.0
Manufacturing	80.7
Transportation	79.4
Public administration	78.7
Other	78.0
Telecommunications	77.0
Other services	76.5
Social services	74.9
Health care	73.9
Agriculture	73.4
Education	71.3
TOTAL	79.9

Current drinkers are employed in small, medium and large organizations in similar proportions to non-drinkers. Table 2.3 provides a breakdown of current drinkers by employer size. About three out of every four people working for very small employers are current drinkers. The level of current drinkers increases until four out of five people working for large employers are current drinkers. In other words, there is a slight tendency for drinkers to work for larger employers.

Table 2.3
Current Drinkers by Size of Employer
(percentage of work force in same size employers)
n=1,978

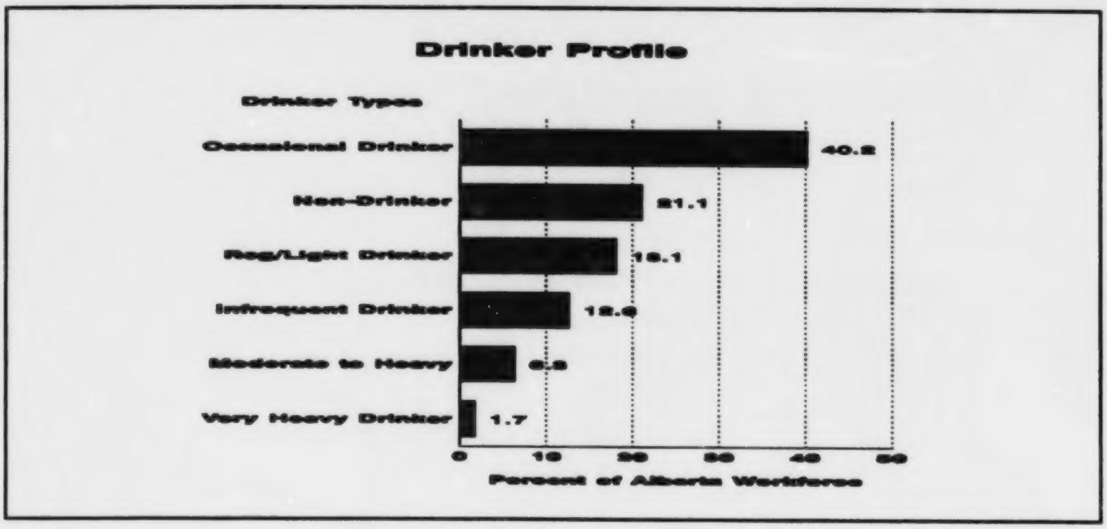
Size of employer	Percentage of workers who are current drinkers
1 to 4 employees	76.0
5 to 9 employees	77.2
10 to 49 employees	78.6
50 to 99 employees	81.4
100 or more employees	81.7
TOTAL	79.9

How are heavy drinkers different from other workers?

The average person in the work force drinks 2.9 drinks each time he or she drinks, for a total of 3.5 drinks a week. However, neither the level of drinking nor its frequency are uniformly distributed across the work force. Rather, the survey revealed distinctive patterns of alcohol use across occupations and industries. The consumption differences across occupations were more pronounced than those among industries. Construction, processing, and materials handling lead in total average consumption, with clerical workers showing the lowest levels. This section provides further detail on the demographic and occupational characteristics of drinkers. We segmented the respondent population in terms of their drinking patterns, defining six types of drinkers:

- non-drinker refers to someone who reported not consuming alcohol in the last 12 months. It includes those who have never drank alcohol, and those who have quit drinking;
- infrequent drinkers are those who reported drinking less than once a month, and never reported any heavy drinking episodes;
- occasional drinkers are those who reported some use of alcohol in the last four weeks, but no heavy drinking episodes;
- regular, light drinkers are those who drink at least once a week, but average between one and seven drinks a week;
- regular, moderate to heavy drinkers are those who drink at least once a week, and typically drink between 8 and 20 drinks a week; and
- very heavy drinkers are those who drink at least once a week and who drink 21 drinks or more a week.

The graph below shows a summary of the proportions of drinker types.



The very heavy drinkers and regular, moderate to heavy drinkers are of particular interest. They are profiled in Exhibits 1 and 2, while Exhibit 3 presents a contrasting profile of the occasional drinker, and Exhibit 4 profiles the regular, light drinker.

The heaviest drinkers, in terms of total consumption, are defined as those consuming 21 or more drinks per week and are profiled below.

Exhibit 1

Profile of a Very Heavy Drinker

- **male**
- **less than 25 years old**
- **never married**
- **construction or materials handling**
- **high school education or less**

Exhibit 2 profiles another set of workers who regularly drink a moderate to heavy amount (8 to 20 drinks per week).

Exhibit 2

Profile of a Regular, Moderate to Heavy Drinker

- **male**
- **over 45 years old**
- **separated**
- **manufacturing**
- **completed trade school**

Occasional drinks, as propiled below, are defined as those who reported some use of alcohol but no heavy drinking episodes.

Exhibit 3

Profile of an Occasional Drinker

- **female**
- **married**
- **clerical or social services**
- **25 – 44 years old**
- **completed high school**

The exhibit below profiles the set of workers who are regular, light drinkers (those who drink at least once a week, but average between one and seven drinks a week).

Exhibit 4

Profile of a Regular, Light Drinker

- **female**
- **divorced or widowed**
- **clerical or social services**
- **35 – 44 years old**
- **high school education or less**

While relatively few people match these profiles absolutely, each of the characteristics (age, occupation, gender, marital status) are associated with the drinking type.

The tables that follow provide details on marital status, age, occupation, and industry for each of the drinker types. The size of the employer showed no significant pattern in terms of drinker types. Similarly, the length of time a person had been employed showed no significant relationship to drinker type.

Table 2.4
Drinker - Types By Industry
(percentage)
n = 1,915

	Non-Drinker	Infrequent Drinker	Occasional Drinker	Regular, Light Drinker	Regular, Moderate to Heavy Drinker	Very Heavy Drinker
Agriculture	28.0	19.5	38.9	13.2	0.5	0
Forestry/mining	12.4	6.6	51.9	22.1	5.2	1.9
Construction	16.1	10.7	40.5	16.9	9.6	6.2
Telecommunication	23.0	7.5	31.2	25.4	10.1	2.8
Wholesale/retail	16.9	12.5	44.9	16.8	6.9	1.9
Education	33.1	4.2	38.2	19.3	1.0	4.2
Social services	25.7	7.0	55.6	11.8	0	0
Public admin.	22.5	17.2	40.5	13.9	5.2	0.7
Upstream oil	8.5	11.4	43.4	25.9	9.2	1.6
Manufacturing	19.6	11.7	36.4	19.6	11.4	1.3
Transportation	21.4	9.8	36.9	18.9	13.1	0
Utilities	18.4	7.6	48.0	6.8	14.8	4.4
Finance	12.2	16.7	49.5	19.9	1.8	0
Health care	27.4	14.6	39.8	13.7	3.0	1.5
Other services	24.5	11.1	31.9	24.7	6.6	1.2
Other	23.3	13.6	35.9	19.4	6.3	1.6

Table 2.5
Drinker - Types By Occupation
(percent of respondents)
n = 1,921

	Non-Drinker	Infrequent Drinker	Occasional Drinker	Regular, Light Drinker	Regular, Moderate to Heavy Drinker	Very Heavy Drinker
Manager	22.9	13.7	35.8	19.2	7.0	1.5
Clerical	18.8	13.4	47.8	16.3	3.3	0.4
Sales	14.0	13.4	46.8	19.4	5.4	1.1
Service	26.8	10.9	37.0	18.9	4.5	1.9
Primary	25.2	17.6	34.2	18.3	3.6	1.1
Processing	19.9	7.5	39.8	18.0	11.8	3.1
Construction	16.1	11.8	42.7	16.1	8.1	5.2
Transportation	20.0	9.6	43.7	15.6	10.4	0.7
Material	18.5	10.0	46.9	12.3	8.5	3.8

Table 2.6
Drinker - Types By Age
(percentage)
n = 1,917

	Non-Drinker	Infrequent Drinker	Occasional Drinker	Regular, Light Drinker	Regular, Moderate to Heavy Drinker	Very Heavy Drinker
15 to 24	14.1	11.7	46.8	17.4	6.4	3.5
25 to 34	15.4	12.3	44.3	19.6	6.6	1.9
35 to 44	20.2	14.2	40.7	18.8	5.5	0.6
45 to 64	32.6	11.1	31.5	16.2	7.0	1.6
65 and over	50.6	16.6	10.6	10.1	5.5	6.6

Table 2.7
Drinker - Types By Gender
(percentages)
n = 1,901

	Non-Drinker	Infrequent Drinker	Occasional Drinker	Regular, Light Drinker	Regular, Moderate to Heavy Drinker	Very Heavy Drinker
Male	19.0	11.1	37.9	20.1	9.3	2.6
Female	23.8	14.5	43.0	15.7	2.6	0.5

Table 2.8
Drinker - Types By Income
(percentage of work force)
n = 1,760

Income	Non-Drinker	Infrequent Drinker	Occasional Drinker	Regular, Light Drinker	Regular, Moderate to Heavy Drinker	Very Heavy Drinker
Under $10,000	23.0	15.1	43.9	11.0	4.2	2.8
$10, - 19,999	24.6	17.4	38.5	10.8	7.6	1.1
$20, - 34,999	23.1	14.0	41.4	14.9	4.5	2.0
$35, - 49,999	18.0	13.5	43.5	18.7	5.3	1.0
$50, - 99,999	16.5	10.0	41.0	23.5	7.1	2.0
$100,000 or more	21.8	3.8	28.7	26.9	16.3	2.7

Table 2.9
Drinker - Types By Marital Status
(percentage)
n = 1,920

	Non-Drinker	Infrequent Drinker	Occasional Drinker	Regular, Light Drinker	Regular, Moderate to Heavy Drinker	Very Heavy Drinker
Married	21.8	12.1	40.5	19.3	5.4	0.9
Separated	26.7	10.8	36.1	12.9	9.5	3.9
Divorced	23.2	15.1	35.7	16.7	5.9	3.3
Widowed	35.0	24.5	32.0	8.5	0	0
Never married	16.9	12.8	42.1	16.7	8.4	3.1

Table 2.10
Drinker - Types By Education
(percentage)
n = 1,915

	Non-Drinker	Infrequent Drinker	Occasional Drinker	Regular, Light Drinker	Regular, Moderate to Heavy Drinker	Very Heavy Drinker
Not high school	28.0	14.8	33.8	14.5	5.7	3.2
High school	18.0	13.7	44.3	16.7	5.9	1.4
Some college	16.7	12.4	42.4	19.5	6.3	2.7
Completed trade	21.6	11.4	37.9	19.7	8.6	0.7
Completed college	24.8	11.3	44.1	17.0	2.7	0
1 or more degree	20.6	11.0	38.4	20.7	7.7	1.7

Table 2.11
Drinker - Types By Size of Employer
(percentage)
n = 1,892

	Non-Drinker	Infrequent Drinker	Occasional Drinker	Regular, Light Drinker	Regular, Moderate to Heavy Drinker	Very Heavy Drinker
1 to 4 employees	25.3	12.9	35.5	21.3	4.2	0.8
5 to 9 employees	23.9	16.0	35.6	17.9	5.2	1.3
10 to 49 employees	22.4	14.9	38.0	17.6	6.3	0.7
50 to 99 employees	19.0	6.3	52.6	13.9	4.3	3.8
100 or more employees	19.2	11.9	41.9	17.5	7.3	2.2

We conducted further analysis using regression techniques. We found that being in a blue-collar occupation or being in a job where you entertained clients were both predictors of consumption as was industry. Although occupation and industry are related (for example, a high proportion of construction trades work in the construction industry), industry accounts for a further 4% of the variation not explained by occupation. However, occupational and sectoral factors do not fully account for different drinking patterns. Moreover, we wanted to find out whether the occupational patterns in substance use were simply a result of underlying differences in age, gender, education, or work design across those occupations.[5] Subsequent sections examine the demographic factors associated with consumption, as well as the work design and workplace norms.

How do the results of this survey compare with other similar surveys?

With the issue of substance use in the public spotlight, a number of surveys have been conducted to explore the prevalence and patterns of substance use. There is general concurrence in the literature that alcohol abuse is far more prevalent and a far greater problem in the workplace than is other drug use. The Health and Welfare National Alcohol and Other Drug Survey (NADS) provides information on Canada-wide drinking and drug use patterns, as well as breakdowns by province. Other research has focused more closely on particular occupational groups, with an emphasis on safety-sensitive occupations. Thus, for example, Transport Canada sponsored surveys of workers in the transportation sector, and the BC Trucking Association surveyed truck drivers.

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[5] Readers are referred to Appendix C, which contains a profile of the Alberta work force.

Given the diversity of the Alberta work force, it was expected that some of the findings from this survey would reflect patterns revealed in other research, both on the population as a whole and on specific sectors of the work force. On the other hand, distinctive features of the Alberta work force (such as its industry and occupational distribution or the average age of workers) were anticipated to lead to somewhat distinctive patterns in the consumption of substances and in their impacts.

Table 2.12 below compares the findings from this survey with those of similar surveys, noting the difference in the populations of interest. The AADAC work force survey found less gender difference than the NADS in Alberta. The NADS (Alberta) found relatively more men were current drinkers and relatively fewer women. We found the proportions of men and women who reported themselves to be current drinkers was quite similar. This difference is primarily due to the higher proportion men reported to be current drinkers in the NADS.

Table 2.12
Comparison with Other Surveys
(percentages)

	Males			Females		
	Non drinkers	Drinkers	Heavy[6] drinkers	Non drinkers	Drinkers	Heavy drinkers
AADAC Survey of Alberta Work Force (1991)	18.4	81.6	3.5	22.5	77.6	1.0
NADS Survey (1989) (Alberta Only)	12.7	87.3	7.1	23.5	76.5	0.0
Ontario Addiction Research Foundation (1989) (Ontario Only)	15.0	85.0	--	20.0	80.0	--

How does employment status relate to drinking?

Background research suggested that persons who were unemployed or working only part time consumed more heavily than those employed on a full-time basis. The NADS had indicated that people who were "looking for work" consumed higher than average levels of alcohol. We theorized that these individuals would have more time on their hands, and would spend more time drinking. We tested this theory by examining the relationship between employment status and consumption patterns. Employment status was related to both drinking frequency and total consumption. We found that people who worked full time were more likely to be current drinkers than those working either part time or unemployed.[7] About one out of eight people reported they worked only part of the year. We found no difference between these individuals and the remainder of the work force in terms of their likelihood of being current drinkers. However, those working all year tended to drink **more frequently** than those working only part of the year. On the other hand, those working only part of the year had a higher total weekly consumption (four drinks a week) compared with those working all of the year (3.4 drinks a week). While they drank less often, they tended to drink more on a typical drinking occasion. However, seasonal or part-time work is also related to occupation, and we found that occupation was a stronger explanatory variable than employment status.

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[6] The NADS and the AADAC survey used the same definitions for heavy drinkers. However, somewhat different question structures may account for some of the differences.

We found that just over 10% of the work force hold a second job. These individuals were just as likely to be current drinkers as those holding one job, and drank with similar frequency. However, they tended to be **lighter** drinkers, consuming a weekly average of 2.5 drinks compared with the remainder of the work force who consumed an average of 3.6 drinks a week.

The majority of all drinkers drink once a week or less. However, part-time workers and those on workers' compensation were most likely to be only occasional drinkers. The pattern in drinking frequency is not as distinct as that of total consumption, as indicated in Table 2.13. People who are temporarily laid off tend to be very heavy drinkers, but their frequency of drinking is not very different from those currently working. They drink about as often as others, but tend to drink more on each occasion. This suggests that Employee Assistance Programs (EAPs) and Member Assistance Programs (MAPs) may wish to target persons who are going to be laid off, providing information about the effects of alcohol consumption.

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[7] Those outside the labour force were not included in the survey.

Table 2.13
Consumption by Employment Status
(percentage of current drinkers)

Frequency of drinking n=1,600	Full time	Part time	Laid off	Workers' compensation	Unemployed (longer term)
Every day	3.3	1.3	5.0	18.4	.0
4 to 6 times a week	3.6	2.4	.0	.0	.0
2 to 3 times a week	17.7	12.6	21.5	10.7	12.3
Once a week	22.7	20.1	21.1	18.7	11.7
1 to 3 times a month	28.8	24.2	26.7	.0	30.6
Less than once a month	23.9	39.4	25.7	52.1	45.4
Average total consumption (drinks per week) n=1,514	3.7	2.7	13.9	3.3	1.5

While less than 1% of the work force reported that they were **currently** receiving workers' compensation, approximately 7% of the work force reported that they had been off work at some point in the last 12 months due to a work-related injury or work-related health problem. This is consistent with the statistic that Workers' Compensation receives one claim for every 20 workers per year. These individuals who reported they had been off work were just as likely to be current drinkers as those who had not been off work for such reasons. However, they were more likely to drink on a daily or almost daily basis, and less likely to drink infrequently. They also drank more heavily, with total consumption averaging 7.7 drinks a week compared with the average of 3.5 for the work force as a whole, and 3.3 drinks per week for those currently receiving workers' compensation. In order to understand these findings, it is important to realize that not every worker who is off work due to a self-reported health or safety problem would be eligible for workers' compensation. It also suggests that a group of heavy drinkers find themselves in poor health such that they cannot work at least some of the year. While we cannot draw conclusions on causes of alcohol consumption, this finding reinforces those in Section 5, which point to the absenteeism impacts of substance use.

Approximately 24% of the work force respondents reported that they were union members. These individuals were just as likely to be current drinkers as those who were not in a union. There was no relationship between drinking frequency and union membership. However, union members tended to be heavier drinkers, consuming an average of 4.2 drinks a week compared with the 3.3 in the remainder of the work force. The higher levels of unionization in blue-collar occupations (such as construction and transportation) would account for this difference.[8]

About 20% of the work force sample reported they owned their own business. People who owned their own business were somewhat less likely to be current drinkers than those who work for someone else. Business owners reported frequency of drinking patterns very similar to those in the work force as a whole.

Background research had suggested that people with a substance use problem may have more difficulty holding a job. We thus examined the relationship between the time with the current employer and various consumption variables.[9] We found no relationship between the length of time a person had been with the current employer and whether he/she was a current drinker. However, there was a relationship between drinking frequency and time with employer, with those individuals who had more recently been hired tending to drink **less** frequently. However, total consumption did not show strong differences by length of employment. While longer-term employees tended to be somewhat heavier drinkers, we found that only 4% of the variation in total consumption can be accounted for by the amount of time an individual had worked with his/her present employer. In effect, these findings suggest that drinkers, even heavy users, tend to remain in their jobs, at least until problems become severe. This is reflected in the findings on employers' reactions to substance use, discussed in Section 6.

What demographic characteristics are associated with drinking?

The NADS revealed that gender and age are related to drinking patterns, with women and older people more likely to be light or non-drinkers, and men and younger people more likely to be heavy drinkers. Because age and gender also correlate with occupation, we controlled for these variables in examining the occupational patterns of consumption. Both age and gender serve to explain only a small proportion (7% for age and 8% for gender) of the occupational variation in drinking patterns. Moreover, because female participation in the work force decreases with age, we examined the combined effect of gender and age on the occupational variations, finding that the two factors combined explain less than 10% of the variation in substance use by occupation.

Different occupations have different educational requirements. We also found that education was related to consumption patterns. We thus controlled for education in examining the pattern of consumption across occupations. As with age and gender, education accounts for only a small portion of the variation in the occupational pattern of consumption. People with less education are somewhat more likely to drink heavily, but substance use is spread across all education levels, as shown in Table 2.14.

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[8] The following occupations are defined as blue collar: primary, processing, construction, transportation and materials handling. The following occupations are defined as white collar: manager, professional, clerical, sales and service.

[9] It should be noted that all of these consumption variables focus only on the drinkers. Average levels of consumption exclude non-drinkers.

Table 2.14
Consumption by Education
(percentage of current drinkers)

Frequency of Drinking n=1,599	Less than high school	High school	Some college	Completed trade	Completed college	One or more degree
Every day	4.1	2.1	2.4	3.1	.0	5.4
4 to 6 times a week	1.9	3.1	3.7	3.5	3.7	3.8
2 to 3 times a week	17.1	12.0	17.7	20.6	12.3	22.0
Once a week	22.4	22.5	19.9	27.8	26.8	17.3
1 to 3 times a month	22.5	31.7	28.1	28.2	27.1	27.2
Less than once a month	31.9	28.6	28.2	16.8	30.2	24.3
Average total consumption (drinks per week) n=1,512	4.9	3.3	4.0	3.7	2.1	3.2

The strongest demographic predictor of drinking patterns is gender. Given the occupational patterns in consumption, gender explains a further 2% of variation. Age accounts for an additional 1% of the variability in drinking patterns not already accounted for by gender and occupation.

Marital status is related both to alcohol consumption frequency and total consumption, as illustrated in Table 2.15.

Table 2.15
Consumption by Marital Status
(percentage of current drinkers)

Frequency of drinking n=1,599	Married	Separated	Divorced	Widowed	Never married
Every day	3.2	4.0	3.8	.0	2.1
4 to 6 times a week	3.4	5.8	2.4	.0	3.1
2 to 3 times a week	15.1	13.9	19.0	11.0	20.7
Once a week	22.0	16.0	16.7	5.7	25.4
1 to 3 times a month	26.9	27.3	29.5	33.9	29.5
Less than once a month	29.3	32.9	28.7	49.4	19.2
Average total consumption (drinks per week) n=1,514	2.9	6.7	3.8	1.2	4.7

However, marital status adds very little to age and gender in predicting consumption levels. The relatively low and infrequent pattern of drinking among persons who are widowed reflects the higher average age of these people. Persons who are separated show the highest average total consumption, and are also most likely to drink every day or almost every day. Those who are single (never married) and those who are divorced also show relatively high levels of drinking but substantially lower than persons who are separated. While causality cannot be determined, this finding reinforces the notion that family problems are often associated with higher levels of consumption. As discussed below, problems with friends and family were commonly reported as being attributed to alcohol use, and were more frequently acknowledged than other problems commonly associated with alcohol use. This also supports the idea that broad brush EAPs may be effective in reaching those with marital problems who also are heavier consumers of alcohol.

What are the workplace implications of the prevalence of alcohol use?

Alcohol use is widespread across the Alberta work force. The majority of people in the work force are drinkers. This general acceptance of drinking among the work force (and Alberta society as a whole) may add to the challenge of both defining and dealing with alcohol abuse among the work force. It is likely more difficult to distinguish between use and abuse of alcohol than of drugs. There is more tolerance for alcohol use, and its harmful side effects may not be recognized as readily.

Alcohol consumption, even heavy alcohol consumption, is not necessarily a workplace problem. It becomes a workplace problem only when work performance is implicated. Heavy alcohol users may continue to work for many years. We can logically expect that some subtle effects of high consumption (such as poor attendance) may reveal themselves more commonly than more high profile problems. Section 5 examines both the low profile and higher profile impacts of alcohol use.

While there are relatively more heavy drinkers in some industries and occupations, compared with others, no workplace should be considered immune to the potential problems associated with heavy alcohol use. Nevertheless, the relationships between alcohol consumption and both industry and occupation pose important concerns for managers, unions and the people in the workplace. Workplaces in construction, transportation, forestry/mining, upstream oil and gas, and utilities sectors are more likely to include people who drink heavily. Although young, male workers are generally more likely to drink heavily, the demographic variables themselves do not explain away the industry and occupational patterns in consumption. We cannot rationalize that the consumption patterns are an inevitable feature of sectors/occupations populated by young men. Section 4 takes a closer look at work design factors that may be linked to the occupational and industrial patterns described in this section.

While the majority of the sample were employed on a full-time basis, persons who have been recently laid off were more likely than the average person to drink on a daily basis, and also tended to consume much more than the average drinker. This pattern was reversed among longer-term unemployed. While it is possible that those recently laid off may have lost their jobs due to alcohol use, it is also possible that their drinking increased following layoff. This possibility suggests that those at risk of being laid off would benefit from a targeted assistance program.

2.2 Drugs

Who are the current drug users?

Drug use is rare across the Alberta work force, with only 6.5% of the work force reporting current use of illicit drugs.[10] Thirty-six percent of the work force have tried an illicit drug at least once in their lifetimes. This figure is higher than that for the population as a whole, as reported in the NADS, although the proportion of current users is similar. The NADS found that 23.2% of adult Canadians and about 29% of Albertans said they had used cannabis at some time, and that 6.5% were current users.

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[10] "Current users of illicit drugs" are defined as those who reported using an illicit drug (such as marijuana, hashish, cocaine, crack, speed, LSD, PCP, or heroin) within the last 12 months. Those reporting they had ever used an illicit drug were followed up with questions on current use. To control the length of the survey, details of current use were investigated for only one type of drugs currently used by the worker, with the type chosen at random from all drugs currently used. Thus, we cannot compare current users' usage of different types of drugs.

The pattern of current drug users varies across occupations as illustrated in Table 2.16. Managerial/professional, primary, and clerical members of the work force are less likely to report being current drug users. Workers in processing, construction, transportation, and materials handling occupations are more likely to report being current users. However, when we look at frequent drug use, we find that managers and professionals account for 23% of people who report using drugs on a daily or almost daily basis. Construction workers account for just over 24% of those frequent drug users. Transportation and materials handling occupations together accounted for less than 4% of frequent drug users.

Table 2.16
Current Drug Users by Occupation
(percentage of work force in each occupation)
n=2,005

Occupation	Percentage who are current drug users
Processing	12.9
Construction	12.0
Transportation	9.5
Materials handling	8.4
Sales	5.8
Service	5.8
Clerical	4.1
Primary	3.5
Manager/professional	3.4
TOTAL	6.5

In terms of industry, social services and agriculture reported relatively fewer current users than the average across all industries. By comparison, upstream oil and gas, transportation, construction, and forestry/mining reported the highest percentages of current users. Current drug use across industries is illustrated in Table 2.17.

Table 2.17
Current Drug Users by Industry
(percentage of work force in each industry)
n=2,002

Industry	Percentage who are current drug users
Upstream oil and gas	12.2
Transportation	11.0
Construction	10.3
Forestry/mining	9.8
Other	7.7
Manufacturing	7.6
Wholesale/retail	7.3
Other services	5.3
Public administration	5.2
Telecommunications	4.7
Utilities	4.2
Health care	3.0
Finance	3.0
Education	2.6
Agriculture	1.5
Social services	0.0
TOTAL	6.5

What is the drug of choice of Alberta workers?

The drug of choice of the Alberta work force is marijuana. Almost all current drug users use marijuana. About 71% of drug users report using more than one type of drug. Most of those report two drugs. Less than 10% of drug users use more than two drugs. Table 2.18 shows the reported drug choices.

Table 2.18
Drug Use by Type of Drug
(percent of all respondents who ever used drugs)

	Ever Used n=728	Used In the Last 12 Months n=123
Marijuana/hashish	99.6	99.5
Cocaine, Crack	12.4	17.0
LSD, PCP or other hallucinogen	14.5	15.7
Heroin	0	0
Other street drugs	6.7	7.9

Just over one-third of the work force reported having used marijuana at least once in their lifetime. LSD, PCP or other hallucinogens were reported to have been tried by only a small proportion of the work force, cocaine was reported to have been tried by a similarly small proportion.

How does employment status relate to drug use?

There is no significant relationship between current drug use and employment status. Current drug users are just as likely as non-users to be working full time, part time or be unemployed. This finding parallels the finding on the employment status of drinkers. Substance use, in and of itself, does not seem to restrict employment opportunities. As was the case with alcohol, it is the pattern and frequency of drug use that is associated with employment status.

Those workers who hold a second job (10% of the work force) were just as likely as those who hold one job to be current drug users. Again, drug use itself does not seem to restrict a person from getting a job.

Individuals who reported that they had been off work in the last 12 months due to a work-related injury or work-related health problem (7% of the work force) were just as likely to be current drug users as those who had not been off work for such reasons. Moreover, there was not a significant difference in frequency of drug use between those who had been off work and the remainder of the work force. As with current drinkers, we did not find a significant difference between length of time with an employer and current drug use.

Respondents who reported that they were union members (24% of the work force) were just as likely to be current drug users as those who were not in a union. Those who reported owning their own business (20% of the work force) were less likely than other work force members to be current drug users. Age may well be the differentiating variable in this case. Those owning their own business tend to be older, while current drug users tend to be younger, as shown below.

What demographic characteristics are associated with drug use?

Current drug users are predominantly male, with men accounting for over two-thirds of the current drug users, as shown in Table 2.19.

Table 2.19
Current Drug Use By Gender
(percentage of people ever using drugs)

Gender	Current User n = 116	Ever Used n = 721
Male	68.0	58.5
Female	32.0	41.5

As might be expected, current drug use is strongly associated with age, as shown in Table 2.20. Younger workers are much more likely to be current drug users.

Table 2.20
Current Drug Use By Age
(percentage of people ever using drugs)

Age	Current User n = 119	Ever Used n = 728
15 to 24	33.0	17.7
25 to 34	43.2	41.0
35 to 44	20.8	35.1
45 to 64	3.0	6.1
65 and over	0	0.1

Given the preponderance of young people among current drug users, it is not surprising that those who are single are more likely to be drug users than are persons who are married. As is the case with drinking, persons who are separated are more likely to use drugs than their married counterparts. The patterns of drug use by marital status are shown in Table 2.21.

Table 2.21
Current Drug Use By Marital Status
(percentage of people ever using drugs)

Marital Status	Current User n = 119	Ever Used n = 728
Married	32.1	56.8
Separated	5.7	2.9
Divorced	6.7	8.7
Widowed	1.7	0.7
Never Married	53.7	30.9

People with less education are more likely to use drugs, but, as mentioned previously, substance use is spread across all education levels. The prevalence of drug use by education is shown in Table 2.22.

Table 2.22
Current Drug Use By Education
(percentage of people ever using drugs)

Education	Current Use n = 117	Ever Used n = 726
No high school	20.3	11.7
High school	26.8	23.8
Some college	16.7	21.6
Completed trade	13.5	12.9
Completed college	5.8	8.1
One or more degree	16.9	21.8

Given the age and education profiles of the current drug users, it is not surprising to find that current drug users are concentrated at lower income levels than the work force as a whole, as shown in Table 2.23.

Table 2.23
Current Drug Use By Income Level
(percentage of people ever using drugs)

Income Level	**Current User** **n = 106**	**Ever Used** **n = 688**
Under $10,000	10.1	3.6
$10,000 to $19,999	11.4	9.3
$20,000 to $34,999	26.3	26.7
$35,000 to $49,999	30.1	27.8
$50,000 to $99,999	19.8	28.7
$100,000 or more	2.3	3.9

Do drug users also drink?

Almost all drug users (97%) also drink. Almost 16% of people who ever used drugs, currently both use drugs and drink, as shown in Table 2.24.

Table 2.24
Use of both Drugs and Alcohol
(percentage of people ever using drugs)
n = 730

Drug Use Last 12 months	**Current Drinker**	
	YES	**NO**
YES	15.8	0.5
NO	74.8	8.8

Those people who both drink and use drugs make up about 6.3% of the work force. Those who both drink and use drugs were more likely to be frequent drinkers. This pattern is shown in Table 2.25. The table presents a conservative estimate of current drug use as people were asked about only one drug that they said they had ever used. The one drug that was followed up on was not necessarily the one drug or the only drug that they currently use.

Table 2.25
Drinking Frequency Among Current Drug Users
(percentage of people ever using drugs)
n=661

Drinking frequency	Drug use status	
	Current drug user	Used drugs once; not current user
Every day	4.8	2.6
4 to 6 times a week	5.1	4.8
2 to 3 times a week	33.0	18.1
Once a week	22.0	25.2
1 to 3 times a month	27.4	27.5
Less than once a month	7.9	21.8

Current drug users were also, on average, heavier drinkers than the non-drug using drinkers. Drug users typically consume about 4.9 drinks on a typical drinking occasion, compared with other drinkers who consume an average of three drinks. Similarly, current drug users had a higher incidence of heavy drinking (more than five drinks at a time) over the last 12 months than did other drinkers. The people who both use drugs and drink reported drinking heavily about twice a month. Other drinkers report drinking heavily about once every two months. Finally, drug users reported drinking an average of 10 drinks a week, compared with 3.8 drinks a week for other drinkers. People who are both heavy drinkers and drug users are disproportionately represented in processing and construction trades. Indeed, almost 30% of the heavy drinkers who are also drug users work in processing occupations, while 17% work in construction.

What are the workplace implications of the prevalence of drug use?

Drug use is much less common than alcohol use among the Alberta work force. However, like alcohol use it cuts across industries and occupations. No employer or union can comfortably claim that their industry is immune to problems associated with drug use. On the other hand, prevalence is not the same across all industries. Some sectors tend to have higher levels of drug use.

Drug use is associated with alcohol use, particularly heavy alcohol use. Moreover, the sectors and demographic groups with higher prevalence of drug use are somewhat similar to those for alcohol use. Thus, policies and programs to deal with substance use should encompass both drugs and alcohol.

2.3 Medications

How common is worker use of medications?

Discussions of substance use in the workplace generally focus on the use of alcohol or illicit drugs. However, there is growing interest in the potential for poor job performance, and even safety risks among workers using prescription and non-prescription medications. Many of these medications are associated with drowsiness or other problems that could impair performance. Moreover, there is concern that doctors, pharmacists, and the individuals taking the medication may not consider these side effects. Research on the occupational impacts of over-the-counter medications is limited. However, Hegmann et al. found that being employed on the job less than one year was a greater predictor of involvement in safety incidents than was medication use.[11]

Use of medications is relatively common among the Alberta work force. More than one out of four workers reported using over-the-counter or prescription medications for coughs, colds, sinus problems, or allergies in the four weeks prior to the survey. Fewer than one out of seven people reported having used tranquillizers, sleeping pills or painkillers in the four-week period prior to the survey. Use of stimulants was reported by less than 1% of the work force.

Is there an industry pattern in medication use?

We found no significant relationship between cough/cold/allergy medication or stimulant use and industry. However, the use of painkillers/tranquillizers varied across industries, as shown in the table below.

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[11] Kurt Hegmann, Patricia Greenlee and Richard Johns, "Medication Reporting in the Workplace," Journal of Occupational Medicine, Vol. 33 No. 11, November 1991.

Table 2.26
Tranquillizer/Painkiller Use by Industry
(percentage of respondents who have used tranquillizers/painkillers in the last four weeks)
n = 2,002

Health care	22.7
Manufacturing	21.8
Education	17.7
Construction	16.9
Social services	15.9
Telecommunications	15.9
Upstream oil and gas	14.1
Finance	13.0
Other services	12.9
Utilities	12.5
Public administration	12.1
Other	11.7
Wholesale/retail	10.2
Agriculture	9.8
Transportation	9.4
Forestry/mining	8.6

There were no significant occupational patterns in medication use.

Do users of medications also drink or use drugs?

Drinking is associated with the use of cough/cold/allergy medications, with people who drink more likely to report using these medications. However, there is no significant relationship between drinking and either painkiller use or the use of stimulants. We found no significant relationship between use of any of the three classes of medications and current drug use.

What demographic factors affect use of medications among the Alberta work force?

Women are more likely to use cough/cold/allergy medications and painkillers/tranquillizers than are men. However, we found no significant gender difference in reported use of stimulants. Table 2.27 shows the prevalence of medication use by gender. The NADS also found a gender difference in the use of medications, with women more likely than men to be users.

Table 2.27
Medication Use by Gender
(percentage of respondents who have used medications in the last four weeks)
n = 1,987

	Male	Female	Both
Cough/cold/allergy medications	12.8	15.8	14.2
Painkillers/tranquillizers	24.4	30.7	27.2
Stimulants	0.3	0.3	0.3

Table 2.28 shows that age is associated with the use of each of the types of medications, although the relationship between age and tranquillizer/painkiller use is less pronounced (significance of p = .08). Use of cough/cold/allergy medication is more common among young workers, while use of painkillers/tranquillizers increases with age. Use of stimulants is also concentrated among younger workers.

Table 2.28
Medication Use by Age
(percentage of respondents who have used medications in the last four weeks)
n = 2,003

	15 - 24	25 - 34	35 - 44	45 - 64	65+
Cough/cold/allergy medications	36.7	25.5	25.1	25.6	25.7
Painkillers/tranquillizers	11.0	13.1	14.2	17.2	22.4
Stimulants	1.3	0	0.3	0	0

Marital status was not associated with differences in medication use.

How does employment status relate to use of medications?

We found no significant relationship between employment status and the use of either cough/cold/allergy medications or painkillers/tranquillizers. Stimulant use, while small overall, was somewhat more common than expected among persons laid off or on workers' compensation. Length of period on the job was not related to medication use.

The relationship between employer size and the use cough/cold/allergy medications is depicted in Table 2.29. There was no significant relationship between employer size and either stimulant use or use of tranquillizers/painkillers.

Table 2.29
Use of Cough/Cold/Allergy Medication by Employer Size
(percentage of respondents who have used cough/cold/allergy medications in the last 4 weeks)
n = 1,978

	YES	NO
1 to 4 employees	21.0	79.0
5 to 9 employees	32.3	67.7
10 to 49 employees	26.1	73.9
50 to 99 employees	23.6	76.4
100 or more employees	29.1	70.9

How are frequent users of medications different from other workers?

Frequent users of cough/cold/allergy medications are disproportionately found among managerial and clerical workers. Indeed, these two occupations account for over half of all people reporting use of cough/cold/allergy medications eight or more times in the last four weeks. The frequent users of cough/cold/allergy medications are found in all industries, with somewhat higher than expected presence in wholesale and retail trades. Transport workers and the transportation sector both reported fewer than average numbers of frequent users of these medications. Almost 60% of the frequent users work for large employers. Over 60% are married. Unlike the average user, the frequent users are concentrated at higher income levels, with 65% earning over $35,000. Men and women were almost equally likely to use these medications frequently.

Painkillers and tranquillizer use is also most frequent among managerial/professional and clerical workers. Public administration, construction, and manufacturing are the industry sectors with the highest proportions of frequent users, relative to the size of the sector. As with cough/cold/allergy medications, use of painkillers/tranquillizers was concentrated among those working for large employers. Almost 72% of frequent users were married. Men and women were almost equally likely to use these medications frequently.

The number of frequent users of stimulants was too low to allow for any analysis of demographic or occupational patterns.

What are the workplace implications of medication use?

Medication use is very widespread, with cough/cold/allergy medications most commonly used. Indeed, a relatively high proportion of workers use these medications during work hours or immediately prior to work. The concern that such medications may cause drowsiness needs to be balanced against the benefit of the use of such medication, enabling the worker to perform despite an ailment such as an allergy. Communicating the risks and precautions needed in the use of these medications is more of a challenge because of their very widespread use.

Section 3
Patterns of Substance Use

This section of the report answers the following questions:

Section 3.1 - Drinking

How often do the current drinkers drink?
How much do people typically drink?
How much do the current drinkers drink each week?
Who drinks a lot on a single drinking occasion?
Who do people in the work force drink with?
Are workers invited to have a drink by customers/clients, co-workers, suppliers or supervisors?
Do consumption patterns change when a worker is on vacation?
Do workers drink during the time they are at work?

Section 3.2 - Drugs

How often do the current drug users use drugs?
Do workers use drugs at work?

Section 3.3 - Medications

How often do people in the work force use medications?
Do workers use medications while at work or before going to work?

Section 3.4 - Workplace Implications

What are the workplace implications of these patterns of substance use?

3. PATTERNS OF SUBSTANCE USE

Simply using alcohol or drugs may not impinge on work performance. Understanding when and where people in the work force use alcohol and drugs is essential in assessing the scope of potential problems. Consumption during or just prior to work hours is generally more of a concern than consumption after work hours. Over 6.5% of workers who drink report having taken a drink during work hours within the last four weeks, including lunch or other breaks. Advertisements and television programs often portray co-workers enjoying a drink together. Indeed, some popular management literature suggests the morale boost of "beer and pizza" for the work team. In fact, we found that people seem to prefer drinking with friends and family rather than with co-workers. The work force respondents were almost three times as likely to report drinking with friends and family as with co-workers.

3.1 Drinking

How often do the current drinkers drink?

Just under half of the current drinkers have a drink at least once a week, while over a quarter drink less than once a month. Table 3.1 shows that people in the construction, transportation, manufacturing, utilities, education, and telecommunications sectors tend to drink more frequently. Those in the upstream oil and gas and manufacturing/processing sectors reported drinking somewhat less frequently. Agriculture workers were more likely to drink only occasionally. Those in wholesale and retail trade, finance, and social services also reported a higher than expected level of infrequent drinkers.

Table 3.1
Drinking Frequency by Industry
(percentage of current drinkers in industry)
n=1,596

Industry	Average frequency of drinking					
	Every day	4-6 times a week	2-3 times a week	Once a week	1-3 times a month	<Once a month
Agriculture	<0.1	0.6	11.9	16.7	32.6	38.2
Forestry/mining	1.5	<0.1	22.6	20.1	29.0	26.8
Construction	5.9	7.4	18.5	23.1	29.5	15.7
Telecommunications	3.9	2.5	18.4	42.0	15.3	17.9
Wholesale/retail	2.8	3.9	10.4	24.4	25.1	33.5
Education	5.1	1.4	20.3	19.0	25.3	28.9
Social services	<0.1	<0.1	9.3	9.1	33.5	48.1
Public administration	2.7	0.9	15.3	25.2	23.9	32.0
Upstream oil and gas	3.0	1.9	15.5	35.0	28.4	16.1
Manufacturing	2.5	6.7	22.8	19.4	26.8	21.8
Transportation	5.9	6.3	10.4	30.5	19.9	27.1
Utilities	11.9	4.6	28.6	11.9	36.7	6.3
Finance	<0.1	2.7	13.6	19.6	30.8	33.3
Health care	2.3	2.0	15.0	18.7	32.3	29.6
Other services	2.1	3.1	19.6	21.3	28.8	25.1
Other	2.9	4.0	21.7	18.3	27.9	25.2
TOTAL	3.0	3.3	16.8	22.1	27.9	26.9

Table 3.2 illustrates that people in managerial/professional, processing, materials handling, and construction occupations reported a higher than average likelihood of daily drinking. Transportation workers reported relatively low likelihood of daily drinking compared with other occupations. Clerical, sales, primary, and service workers reported a higher than expected level of only occasional drinking.

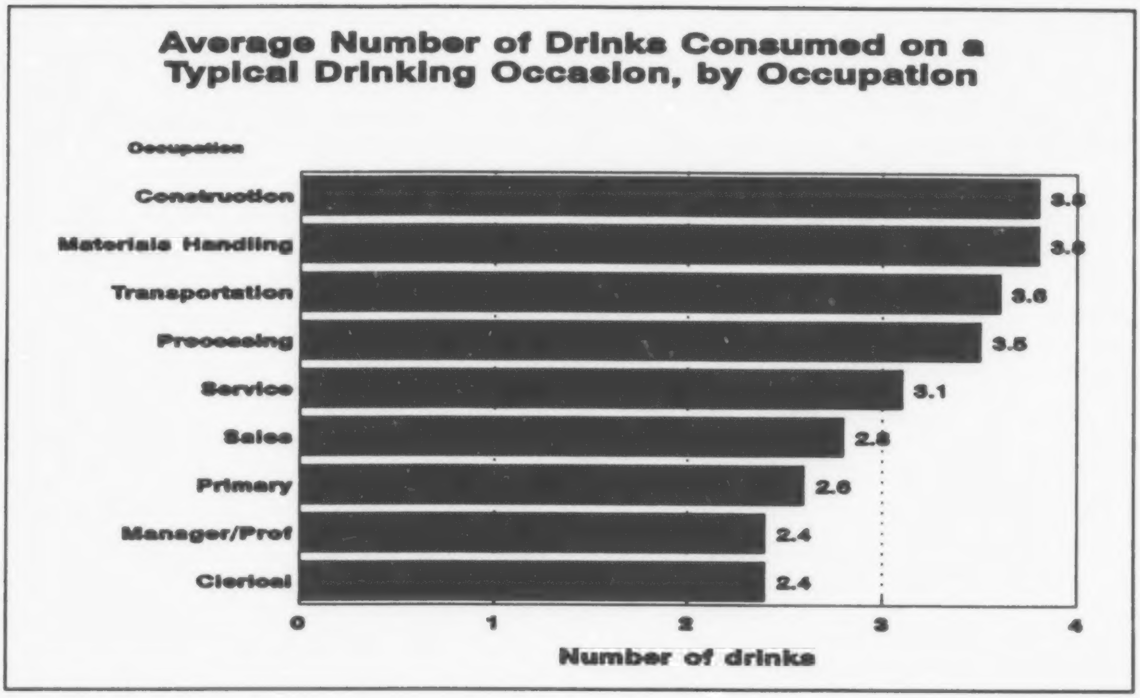
Table 3.2
Drinking Frequency by Occupation
(percentage of work force in occupation)
n=1,600

Occupation	Average frequency of drinking					
	Every day	4-6 times a week	2-3 times a week	Once a week	1-3 times a month	<Once a month
Manager/professional	4.0	3.5	17.6	22.0	26.4	26.4
Clerical	1.2	1.7	11.6	21.2	31.5	32.8
Sales	3.0	3.0	13.3	23.6	23.6	33.3
Service	1.5	2.5	17.2	19.6	27.9	31.4
Primary	0.5	2.3	18.1	22.2	25.9	31.0
Processing	5.3	6.1	20.5	23.5	28.0	16.7
Construction	6.6	3.8	23.1	20.9	29.7	15.9
Transportation	<0.1	5.4	18.0	26.1	31.5	18.9
Materials handling	3.7	5.6	16.8	24.3	31.8	17.8
TOTAL	3.0	3.3	16.8	22.1	27.9	27.0

While there is some variation in drinking frequency in terms of the size of the employer, it is not statistically significant. People working for small employers and large employers were similarly likely to drink often or occasionally.

How much do people typically drink?

Most people drink moderately. The average person drinks 2.9 drinks on a typical drinking episode. Almost 60% of current drinkers reported drinking two or fewer drinks on a typical drinking occasion. A further 25% reported drinking three or four drinks on a typical drinking occasion, and 10% reported drinking five or six drinks. Only one in twenty people in the work force reported drinking seven or more drinks on a typical drinking occasion. On this basis, we estimate that about 48,000 people in the work force drink seven or more drinks on a typical drinking occasion. Drinking patterns differ across occupations, as shown in the following graph.



Workers in occupations such as construction, materials handling, transportation, processing, and service reported consuming a larger number of drinks on an average drinking occasion than workers in other occupations. In general, workers in blue-collar occupations were found to consume more drinks on a typical drinking occasion than workers in other occupations.

Consumption on a typical drinking occasion also varies according to industry. People in the construction and upstream oil and gas industries consume significantly more on a typical single drinking occasion than workers in other industries. Workers in wholesale and retail trades typically consume significantly more per occasion than workers in the education or health care industries in particular. Average number of drinks consumed on a typical drinking occasion does not vary significantly by size of employer.

In dividing the Alberta work force into 10 broad occupational groups, we followed standard classification procedures. However, we inevitably mixed together some rather diverse occupations. In particular, we were concerned that farmers were grouped with other primary production workers, including forestry, mining, and upstream oil and gas. Recognizing the distinctions in consumption patterns from agriculture to forestry, mining and upstream oil and gas, we looked more closely at the differences between primary production workers in different industrial sectors. The table below contrasts key indicators of farmers' drinking patterns with those of the work force as a whole. Each of the indicators reflects a lower likelihood of drinking problems among farmers than among the work force as a whole.

Table 3.3
Drinking Patterns Among Farmers Versus Total Work Force

Indicator	Farmers n = 71	Total Work Force n = 2,007
Percentage drinking daily or almost daily	0.9%	6.6%
Number of drinks on a typical drinking occasion	2.2	2.9
Average total weekly alcohol consumption (drinks)	1.8	3.5
Number of times drank 5+ drinks on one occasion in last 12 months	2	6

How much do the current drinkers drink each week?

We estimated the total weekly alcohol consumption for each respondent by multiplying the average number of drinks reported for a typical drinking occasion by the number of days per week that he or she drinks. The average current drinker drinks 3.6 drinks a week.

Blue-collar workers (that is, people in construction, materials handling, and processing occupations) generally reported significantly higher overall consumption of alcohol than those in white-collar occupations (such as managerial, professional, clerical and sales) occupations. White-collar workers consume an average of three drinks a week, while blue-collar workers consume an average of five drinks per week, as illustrated in Table 3.4.

Table 3.4
Weekly Alcohol Consumption by Occupation
(average number of drinks per week)
n=1,559

Occupation	Number of drinks per week
Construction	6.6
Materials handling	5.8
Processing	5.5
Transportation	4.5
Service	3.8
Managerial/professional	3.3
Sales	2.9
Other primary	2.8
Clerical	2.2
TOTAL	3.6

Workers in the construction and utilities industries reported a higher total consumption than workers in other industries, as seen in Table 3.5.

Table 3.5
Weekly Alcohol Consumption by Industry
(average number of drinks per week)
n=1,555

Industry	Number of drinks per week
Utilities	8.0
Construction	7.1
Manufacturing	4.5
Upstream oil and gas	4.2
Telecommunications	4.2
Transportation	3.9
Other services	3.9
Other	3.7
Forestry/mining	3.7
Wholesale/retail	3.1
Education	3.0
Public administration	2.7
Health care	2.5
Finance	2.2
Social services	1.8
Agriculture	1.7
TOTAL	3.6

Total consumption was not found to vary by size of employer.

Who drinks a lot on a single drinking occasion?

Infrequent drinkers may have alcohol problems if they are also exceptionally heavy drinkers. Just over 12% of work force respondents reported that they **could** drink more than others. As an indicator of the frequency of heavy drinking episodes, we asked people how often in the last 12 months they had had five or more drinks on one occasion.[12] These heavy drinking episodes were of interest in this context because there is a greater chance of the worker having a hangover at work the next day. Thus, even though the drinking occurs after work, the worker may feel the after-effects during work hours.

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[12] The NADS suggested that people typically drank two to three drinks on one occasion. Five was chosen as a cut-off between moderate and heavy drinking because it was roughly twice the typical consumption.

Approximately 44% of the work force reported **never** having five or more drinks on one occasion over the past 12 months. A quarter of the work force reported having engaged in such heavy drinking on only one or two occasions. Only 10% of the work force said that they had had five or more drinks on one occasion more than 10 times over the last year.

Occupationally, there are significant differences in the number of heavy drinking episodes respondents reported over the last 12 months, as outlined in Table 3.6. Workers in the construction, transportation, and materials handling occupations reported the greatest number of heavy drinking episodes, while clerical workers reported the fewest. Blue-collar workers in general were found to consume five or more drinks in a single drinking occasion more frequently than other workers.

As expected, the occupations most likely to drink heavily in a single drinking session also tend to be heavy overall consumers. Thus, transportation, construction, materials handling, and processing are all more likely to drink heavily, and tend to drink more in total. However, occupations with similar incidence of heavy drinking still show variations in total consumption. Thus, for example, managerial/professional and clerical workers both reported an average of four occasions of heavy drinking over the last 12 months. However, managers report an average weekly consumption of 3.3 drinks, as opposed to 2.1 for clerical workers. While neither drink heavily very often, managerial/professional people drink a somewhat greater volume on a regular basis.

Table 3.6
Average Incidence of Heavy Drinking Episodes and Total Weekly Consumption by Occupation
(includes drinkers in the work force)
n=1,550

Occupation	Number of times drank 5+ drinks in the last 12 months	Average weekly consumption (drinks)
Managerial/professional	4.0	3.3
Clerical	4.0	2.1
Sales	5.3	2.9
Service	5.3	3.5
Primary	4.9	2.7
Processing	9.8	5.4
Construction	11.7	6.7
Transportation	10.6	4.5
Materials handling	13.8	5.8
TOTAL	5.9	3.6

The pattern of heavy drinking by industry somewhat reflects that indicated occupationally, with the construction sector showing a very high incidence of heavy drinking over the last 12 months, as shown in Table 3.7. However, the utilities sector also shows a high incidence of heavy drinking. The heavy drinking in a single episode is also associated with heavier total weekly consumption, as shown in the second column of the same table. However, this is not always the case. For example, the health care sector shows one of the lowest incidence of heavy drinking in a single episode, but ranks in the middle group in terms of total consumption. The health care sector is characterized by frequent moderate drinking and a very low incidence of heavy drinking.

Table 3.7
Average Incidence of Heavy Drinking and Total Weekly Consumption by Industry
(includes drinkers in the work force)
n=1,547

Industry	Number of times drank 5+ drinks in the last 12 months	Average total weekly consumption (drinks)
Agriculture	2.2	1.7
Forestry/mining	8.0	3.8
Construction	14.8	7.1
Telecom	7.7	4.4
Wholesale/retail	7.4	3.0
Education	2.9	3.0
Social services	1.4	1.4
Public administration	3.7	2.7
Upstream oil and gas	8.0	4.2
Manufacturing	7.1	4.5
Transportation	7.0	3.9
Utilities	15.6	7.8
Finance	3.7	2.2
Health care	1.9	2.6
Other services	4.0	3.8
Other	5.4	3.5
TOTAL	6.0	3.6

There is some risk that heavy drinkers may still be affected by alcohol when they report for work the next day. We assumed that a 175-pound man drinks two drinks an hour over a four-hour period. It would take about 13 hours for alcohol from these drinks to be almost completely metabolized. Thus, a worker planning to report for work at 8 a.m. would have to stop drinking by 5 p.m. the night before for the alcohol to be fully metabolized.[13] If this individual drank until midnight, he would likely have a blood alcohol level of 0.08 when he reported for work the next morning.

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[13] This does not include the "withdrawal" effects, the hangover the workers might have.

Who do people in the work force drink with?

The image of co-workers enjoying a drink together is often portrayed in the popular media, particularly in advertisements. Moreover, management literature describes the morale-boosting value of a work team going for a drink together. Background research raised some concern about the implications of subtle promotion of drinking with co-workers as part of a workplace culture. We thus wanted to determine the work force prevalence of drinking with co-workers, compared with drinking with friends and family or drinking alone.

The survey revealed that the Alberta work force is far more likely to drink with friends and family than to drink with co-workers or alone. About 82% of current drinkers report having had a drink with friends or family in the last four weeks. By comparison, about 29% of current drinkers report having had a drink with a co-worker or supervisor in the last four weeks, and only 17% report having had a drink alone in this period. Table 3.8 summarizes the reported frequency of drinking in each of the three situations.

Table 3.8
Frequency of Drinking by Social Context
(percentage of drinkers in the work force)
n=1,601

Frequency of drinking	Condition		
	With friends or family	With co-workers, including supervisors	By yourself or when others were not drinking
Every day	3.0	0.6	1.3
4-6 times a week	3.6	0.9	0.9
2-3 times a week	14.4	1.9	1.8
Once a week	13.3	2.9	2.4
1-3 times a month	36.7	15.4	6.5
Less than once a month	11.2	7.5	4.0
Never	17.7	70.7	83.0

These data are generally consistent with the NADS. Across Canada, just over 60% of people report never drinking with co-workers, and 77% report never drinking alone. Drinking with friends and family is most popular. However, the proportion of people drinking **frequently** with co-workers was higher in this survey than in the NADS. The NADS found 1.5% of drinkers drank with co-workers once a week or more. We found that 6.3% drank with co-workers at least once a week.

Analyzing overall drinking frequency in terms of the social context of drinking reveals that drinking with family and friends or drinking alone is much more common among frequent drinkers than is drinking with co-workers. However, as expected, those who drink frequently are more likely than the rest of the work force to go for a drink with their co-workers or supervisors. As would be expected, people who drink every day or almost every day are more likely to report having had a drink at work in the last four weeks.

The frequency of drinking in various social contexts is also associated with overall drinking frequency. Persons who generally drink more frequently are more likely to drink with co-workers, and more likely to do so on a regular basis. Moreover, people who drink once a week or more with their co-workers tend to have higher levels of total alcohol consumption than those who drink with similar frequency with friends or family, as illustrated in Table 3.9.

Table 3.9
Average weekly consumption by frequency of drinking in two social contexts
(drinks per week)
n=1,513

Frequency of drinking	Condition	
	With friends or family	With co-workers, including supervisors
Every day	7.5	10.4
4-6 times a week	9.9	19.3
2-3 times a week	7.0	7.3
Once a week	4.9	6.7
1-3 times a month	2.6	5.1
Less than once a month	1.3	3.3
Never	1.3	2.7

The social context of drinking varies somewhat by occupation and by industry, as shown in Tables 3.10 and 3.11 on the following pages. However, the occupational variation in drinking with friends/family or alone is statistically significant, but the occupational pattern of drinking with co-workers is not. In effect, clerical workers are just as likely to drink with co-workers as are people in the construction industry. Industry differences are significant in all three contexts.

Table 3.10
Frequency of Drinking by Social Context by Occupation
(percentage of drinkers in the work force)

	With friends and family (%)				With Co-Workers (%)				Alone (%)			
	4+ times a week	1 - 3 times a week	< 1 time a week	Never	4+ times a week	1 - 3 times a week	< 1 time a week	Never	4+ times a week	1 - 3 times a week	< 1 time a week	Never
Manager	6.6	31.6	43.0	18.9	1.3	5.7	20.6	72.4	2.2	5.3	12.7	79.8
Clerical	4.1	24.9	53.5	17.4	0.8	2.1	24.1	73.0	0.8	0.4	8.3	90.5
Sales	7.3	23.0	52.1	17.6	0.6	4.2	21.2	73.9	3.0	1.2	6.1	89.7
Service	10.3	27.0	46.6	16.2	2.5	6.4	23.0	68.1	2.5	1.5	7.8	88.2
Primary	3.7	26.0	41.4	28.8	0.9	6.0	18.1	75.0	1.9	4.7	11.6	81.9
Processing	6.1	34.1	49.2	10.6	1.5	3.8	31.8	62.9	3.8	9.8	12.1	74.2
Construction	8.2	25.3	51.1	15.4	3.8	6.6	23.1	66.5	3.3	7.7	9.9	79.1
Transport	7.2	22.5	55.9	14.4	0.9	2.7	27.9	68.5	0.9	7.3	15.5	76.4
Materials	7.5	20.6	53.3	18.7	2.8	3.7	24.3	69.2	1.9	5.6	16.8	75.7

Table 3.11
Frequency of Drinking by Social Context by Industry
(percentage of drinkers in the work force)

	With friends and family (%)				With co-workers (%)				Alone (%)			
	4+ times a week	1 - 3 times a week	< 1 time a week	Never	4+ times a week	1 - 3 times a week	< 1 time a week	Never	4+ times a week	1 - 3 times a week	< 1 time a week	Never
Agriculture	3.5	20.5	47.1	28.8	0.6	1.2	19.3	78.9	1.2	3.1	6.4	89.3
Forestry/mining	15.3	16.0	56.2	12.5	<0.1	2.1	17.0	80.8	0	6.2	12.3	81.5
Construction	10.0	24.6	51.2	14.3	2.4	8.5	20.8	68.3	3.7	5.9	11.6	78.8
Telecom	5.3	39.1	45.8	9.7	<0.1	0	50.1	49.9	5.3	2.5	23.6	68.6
Wholesale/retail	9.1	20.1	51.5	19.3	0.8	5.8	17.1	76.2	2.2	2.5	8.6	86.7
Education	7.7	37.9	49.3	5.1	3.0	1.4	9.4	86.3	5.1	3.8	11.4	79.7
Social services	<0.1	18.5	72.4	9.1	<0.1	2.9	35.9	61.2	0	0	2.9	97.1
Public admin.	2.8	22.0	53.5	21.7	1.5	3.8	22.5	72.2	1.7	7.2	4.4	86.6
Upstream oil & gas	7.5	34.1	43.5	14.9	1.0	9.1	30.8	59.1	2.2	4.2	12.8	80.7
Manufacturing/ processing	1.1	40.3	43.9	14.7	2.5	8.6	23.8	65.1	3.0	9.3	8.7	78.9
Transportation	6.3	32.9	47.2	13.5	<0.1	0.8	22.9	76.3	3.8	7.1	7.3	81.8
Utilities	9.4	28.7	47.8	14.1	7.1	0	19.7	73.2	4.8	4.8	23.8	66.5
Finance	7.2	23.1	48.4	21.3	0.9	1.9	24.3	73.0	0	0	6.5	93.5
Health care	5.4	21.6	52.2	20.8	<0.1	0.7	18.4	80.8	0.7	5.1	11.9	82.2
Other services	3.5	39.2	42.2	15.1	3.6	2.7	26.3	67.4	4.2	3.1	10.8	81.8
Other	9.4	28.6	41.1	20.9	1.8	9.6	25.8	62.8	1.2	3.4	13.3	82.1

Are workers invited to have a drink by customers/clients, co-workers, suppliers or supervisors?

Work force members are occasionally invited to have a drink by customers or clients. Sixteen percent of workers reported being invited to have a drink by customers or clients in the four weeks prior to the survey. Over a third of workers (37%) reported being invited to have a drink by their co-workers over the previous four weeks. Both suppliers and supervisors occasionally invite workers to have a drink.

Table 3.12 shows the likelihood of a worker being invited to have a drink by customers/clients, co-workers, supervisors/managers, and suppliers in each occupation. Manager/professional, sales, and service occupations reported the highest frequency of being invited to have a drink by a customer or client, whereas clerical and materials handling workers reported only rare occurrences of being invited to have a drink by a customer or client. Materials handling workers are, however, most likely to report being invited to have a drink by a co-worker. Managers/professionals, primary workers, clerical workers, and sales workers are least likely to report being invited to have a drink by a co-worker. The processing and managerial/professional occupations are most likely to report being invited to have a drink by a supervisor while clerical and materials handling workers are least likely to report this happening. Suppliers only occasionally invite workers in primary, sales, or transportation occupations to have a drink, but are more likely to invite workers in construction and processing occupations to have a drink.

Table 3.12
Received an Invitation to Drink by Occupation
(percentage of drinkers in work force by occupation)

Occupation	Percentage of drinkers in work force invited to have a drink by			
	Customer or client n=1,598	Co-worker n=1,602	Suppliers n=1,600	Supervisor/manager n=1,205
Managerial/professional	18.1	32.0	9.3	14.1
Clerical	6.6	32.8	1.7	11.8
Sales	18.8	33.3	6.7	9.0
Service	19.1	38.7	2.9	13.1
Primary	15.3	32.4	6.5	8.6
Processing	17.6	47.0	10.6	15.5
Construction	17.6	45.1	4.4	15.9
Transportation	11.7	43.2	5.4	9.8
Materials handling	6.5	54.2	1.9	14.3
TOTAL	15.5	36.6	6.1	12.8

Table 3.13 shows the likelihood of workers from different industries being invited to have a drink. Workers in the telecommunications and finance industries are most likely, and workers in the health care, education, and forestry/mining industries are least likely to report being invited to have a drink by a customer or client. Workers in the forestry/mining, construction, upstream oil and gas, and manufacturing industries are most likely, and workers in agriculture and health care are least likely to be invited to have a drink by a co-worker. Invitations from supervisors/managers are more frequently reported by workers in the utilities and telecommunications industries, and only rarely reported by workers in social services and education. Suppliers are most likely to invite workers in the manufacturing industry to have a drink, and least likely to invite workers in the education industry to have a drink.

Table 3.13
Received an Invitation to Drink by Industry
(percentage of work force in industry)

Industry	Percentage of work force invited to have a drink by			
	Customer or client n=1,595	Co-worker n=1,598	Suppliers n=1,596	Supervisor/manager n=1,202
Agriculture	14.3	19.9	3.9	18.6
Forestry/mining	5.3	45.6	7.7	11.8
Construction	18.5	44.5	6.9	18.5
Telecommunications	26.6	42.8	10.8	7.9
Wholesale/retail	15.4	39.1	4.4	11.3
Education	4.0	22.3	0.7	3.6
Social services	12.0	42.0	<0.1	17.3
Public administration	9.3	32.9	1.4	7.1
Upstream oil and gas	18.2	44.4	8.8	13.6
Manufacturing	15.3	44.3	8.7	22.9
Transportation	10.4	39.9	3.2	13.0
Utilities	17.0	29.3	13.0	12.5
Finance	24.3	36.9	8.1	8.2
Health care	3.0	19.0	1.5	7.7
Other services	15.8	43.2	3.8	10.4
Other	24.1	41.6	11.2	18.0
TOTAL	15.5	36.6	6.1	12.7

While an invitation to drink does not equate with having a drink, people who reported being invited to have a drink by customers/clients, co-workers, supervisors/managers, or suppliers tend to have higher levels of average total weekly consumption. Rather than "causing" or even encouraging the drinking pattern, it is possible that the invitations are directed to persons who already have heavier patterns of drinking. Those offering the invitation may realize which workers are more likely to accept.

Do consumption patterns change when a worker is on vacation?

The work force survey was conducted over late August and early September. Some of those surveyed may have recently completed their summer vacation. Background research had suggested that consumption patterns differed during vacation periods. Since some of the consumption questions referred to consumption patterns in the last four weeks, we also asked people whether they had taken a vacation in the last four weeks. We found that while vacations were associated with somewhat higher consumption, having taken a recent vacation accounted for a very small proportion of the occupational variations in consumption. Vacations were well distributed across the occupational spectrum.

Do workers drink during the time they are at work?

The majority of workers who drink (93.5%) never drink when they are at work, including lunch and other breaks. However, over 60,000 Alberta workers drink during work hours at least once a month. The majority of these people take a drink during work hours once a week or less. A small number of workers drink once a week at work. More regular drinking on the job is rare. All occupational groups are equally likely to drink during the time they are at work, as indicated in Table 3.14. Drinking at work was found to not be related to the average number of drinks a worker consumes on average drinking occasions.

Table 3.14
Frequency of Drinking at Work by Occupation
(percentage of drinkers in the work force by occupation)
n=1,599

Occupation	Frequency of drinking at work				
	Never	1-3 times a month	Once a week	2-3 times a week	4 or more times a week
Managerial/professional	92.1	0.4	4.4	2.6	0.4
Clerical	95.4	1.3	2.1	0.8	0.4
Sales	95.2	1.2	3.0	<0.1	0.6
Service	95.1	0.5	3.9	<0.1	0.5
Primary	93.5	0.5	4.2	1.4	0.5
Processing	91.7	4.5	0.8	2.3	0.8
Construction	89.6	4.4	3.3	1.6	1.1
Transportation	94.6	2.7	1.8	<0.1	0.9
Materials handling	98.1	0.9	0.9	<0.1	<0.1
TOTAL	93.5	1.4	3.2	1.3	0.5

Table 3.15 illustrates frequency of drinking at work across industries. Workers in the forestry/mining and health care industries reported never drinking at work, while workers in the upstream oil and gas, construction,

telecommunications, and manufacturing industries were less likely to report never drinking at work. Workers in telecommunications and finance were slightly more likely to report weekly drinking at work.

Table 3.15
Frequency of Drinking at Work by Industry
(percentage of drinkers in the work force by industry)
n=1,595

Industry	Frequency of drinking at work				
	Never	1-3 times a month	Once a week	2-3 times a week	4 or more times a week
Agriculture	95.1	<0.1	3.7	0.6	0.6
Forestry/mining	100.0	0.0	0.0	0.0	<0.1
Construction	87.9	5.5	4.3	1.2	1.2
Telecommunications	89.3	<0.1	7.9	2.8	<0.1
Wholesale/retail	95.6	1.1	2.2	0.6	0.5
Education	99.2	0.8	<0.1	<0.1	<0.1
Social services	96.7	3.3	<0.1	<0.1	<0.1
Public administration	96.0	2.0	2.0	<0.1	<0.1
Upstream oil and gas	85.3	3.2	5.7	4.0	1.8
Manufacturing	89.4	1.0	5.3	2.4	1.9
Transportation	97.6	<0.1	1.6	<0.1	0.8
Utilities	92.6	<0.1	4.6	<0.1	2.4
Finance	90.5	2.2	7.3	<0.1	<0.1
Health care	100.0	0.0	0.0	0.0	0.0
Other services	91.0	1.7	5.2	2.1	<0.1
Other	93.7	1.0	1.9	3.4	<0.1
TOTAL	93.5	1.5	3.2	1.3	0.5

Although only 6.5% report drinking during work hours, about 8% of drinkers indicated that people in their workplace go for a drink together at lunch, most commonly on a weekly or semi-weekly basis.

3.2 Drugs

How often do the current drug users use drugs?

Almost two-thirds of the current drug users in the work force should be considered occasional users. About 65% of work force survey respondents who have used drugs in the past 12 months reported using drugs less than once a month. Half of the remaining drug users use drugs one to three times a month. Table 3.16 illustrates average frequency of drug use.

Table 3.16
Typical Frequency of Drug Use
(percentage of current drug users in the work force)
n=118

Frequency	Percentage of current drug users
Daily	4.7
4-6 times a week	1.1
2-3 times a week	9.5
Once a week	2.8
1-3 times a month	17.2
Less than once a month	64.7

Less than one in 20 current drug users uses drugs on a daily basis. This translates into fewer than one in 300 people in the work force using drugs on a daily basis. If there is an average of five workers in the typical workplace, then one out of 60 workplaces is likely to include a frequent drug user. While this is a very small proportion of the work force, it still gives some cause for concern. We estimate that there are about 4,000 people in the Alberta work force using drugs on a daily basis. Whether or not these individuals use drugs at work, it is possible that the effect of the drugs may carry over into their work day.

The frequency with which drug users use drugs should be contrasted with the frequency of alcohol use. As we have seen, current drinkers tend to drink on a regular basis. Occasional use of alcohol is much less common than is occasional drug use.

Do workers use drugs at work?

Only a handful of work force respondents (less than 0.5% of the work force) reported having used drugs while at work in the last 12 months. On this basis, we estimate that 6,000 people used drugs during work hours in the last 12 months. There is no significant difference in terms of occupation or industry in the likelihood of a current drug user choosing to use drugs while at work. A small proportion of workers in a wide range of occupations reported using drugs while at work. These include people in managerial/professional, clerical, primary, processing, transportation, and construction occupations. About a quarter of those who reported using drugs while at work said they used the drugs alone. The majority reported using drugs with other people while at work. Again, there was no significant difference across occupations or industries. People who use drugs at work tend to do so with other people, regardless of the industry or occupation.

3.3 Medications

How often do people in the work force use medications?

Table 3.17 illustrates the average number of times respondents to the work force survey used medications over the last four weeks across occupations.

Table 3.17
Average Number of Times Medication Used in Last Four Weeks
n=2,006

Occupation	Cold/cough/allergy	Tranquillizer/ painkiller	Stimulant
Managerial/professional	2.9	1.6	0.01
Clerical	2.4	1.4	0.01
Sales	1.6	0.7	0
Service	1.9	1.0	0.1
Primary	2.0	1.1	0
Processing	1.2	0.8	0.01
Construction	1.8	1.2	0.05
Transportation	1.1	0.5	0
Materials handling	2.8	0.9	0.1

Of the workers reporting having used over-the-counter or prescription medications for a cough, cold, sinus problem or allergy in the four-week period prior to the survey (27% of the work force), over half (55%) had done so on four or fewer days, i.e., once a week or less. Another 20% had done so twice a week. Ten percent of the users of these medications had used them every day in the last four weeks. This frequent usage could have been due to long-term sinus problems or allergies.

Of the workers reporting having taken tranquillizers, sleeping pills or painkillers in the four weeks prior to the survey (14% of the work force) over half (53%) reported having done so on four or fewer days, or once a week or less. A further 17% had taken such medications up to eight or fewer times over the four weeks. Thirteen percent of the users of these medications used them every day over the four weeks.

Only a handful of the work force respondents (less than 1%) reported having taken any diet pills or pills to keep them awake (stimulants) over the four weeks prior to the survey. Of those who did report using these medications 67% said that they had used them on three or fewer days.

The frequency of cold/cough/allergy medication use is positively correlated with the frequency of painkiller use. Frequent users of cough/cold/allergy medications tend to be frequent users of painkillers.

Do workers use medications while at work or before going to work?

Members of the work force were also asked on how many days in the past four weeks they had taken any medications while at work or in the three-hour period before going to work. Of those workers using medications for a cough, cold, sinus problem or allergy, about half (47%) reported not having taken the medication while at work or just before going to work. Ten percent said that they had done so once in the last four weeks and another 20% said that they had done so between two to five times in the last four weeks. Seven percent reported having used these medications at work or just before work every day over the last four weeks. Of the workers using tranquillizers, sleeping pills or painkillers, 62% said that they had not done so at work or just before work. Another 23% reported that they had taken these medications at or just before work between one and five times over the time period in question. Five percent reported having done so every day over the last four weeks. Of the few workers using diet pills or stimulants, all reported having used them at work or just prior to going to work. The number of days on which they did so over the last four weeks ranged between one and 25.

The level of use at or prior to coming to work over the last four weeks varies somewhat across occupations, as shown in Table 3.18.

Table 3.18
Average Number of Times Medication Used At or Just Before Work
n = 2,006

Occupation	Cold/cough/allergy	Tranquillizer/ painkiller	Stimulant
Managerial/professional	1.6	0.6	0.01
Clerical	1.3	0.7	0.01
Sales	1.0	0.2	0
Service	1.3	0.2	0.1
Primary	1.1	0.9	0
Processing	0.7	0.6	0.01
Construction	1.0	0.8	0.03
Transportation	0.5	0.2	0
Materials handling	1.3	1.0	0

Managerial and professional workers are the heaviest users, and are also the ones who use cough, cold and allergy medications most often on the job or immediately prior to working. Transportation workers report relatively low levels of use, and also relatively low usage on the job or immediately prior to working.

3.4 Workplace Implications

What are the workplace implications of these patterns of substance use?

Most people drink moderately, about once or twice a week, with friends or family. While heavy drinkers are somewhat more likely to drink with their co-workers, they are also more likely to drink in other social contexts. In effect, the co-workers' going for a drink together simply offers another occasion to indulge.

Drinking at work is rare, but is more common among people who are heavy drinkers. Thus, heavy consumption should be regarded as a risk factor for drinking during work hours. Heavy drinking can also cause problems if it leads to a hangover the next day. The incidence of heavy drinking episodes are highest among workers in construction, transport, materials handling, and utilities.

The tendency of people who use drugs at work to do so with other people is cause for concern. It suggests that having some people using drugs in the workplace may encourage other people to do so. Subsequent sections of the report will show that we did not find significant acceptance of drug use in the workplace. Nevertheless, people who see a co-worker using drugs may find a means of rationalizing their own use.

Medication use, particularly of cold/cough/allergy medications, during or just before work hours, is more widespread than that of other drugs. Medication usage patterns appear to be intermittent, indicating that the users were treating a specific ailment rather than using the medication in an ongoing manner. The need for the medication and the benefits of taking the medication have to be balanced against possible side effects. A key challenge lies in communicating the risks of such medication use.

Section 4
Situational Factors Related to Substance Use

This section of the report answers the following questions:

Are substances available or accessible near work sites?

What workplace norms exist in the Alberta workplace regarding substance use?

How do work design characteristics relate to substance use?

How does job stress relate to alcohol use?

What are the implications for managers and unions?

4. SITUATIONAL FACTORS RELATED TO SUBSTANCE USE

The occupational and industry patterns in substance use among the Alberta work force suggest there may be factors inherent in certain work situations that either attract people who are inclined to substance use or that encourage substance use. For example, background research suggested that availability of alcohol and drugs at or near the work site could contribute to the level of use and hence to the impact of substance use on the workplace. Such availability can make it easier for a substance user to obtain his or her substance of choice, and may increase the possibility of substance use occurring on the work site or on work breaks. Availability can also be inherent in some occupations or industries; for example, availability of alcohol in the hospitality sector and availability of drugs in health care.

The research thus explored various aspects of working conditions and work design. Three possible types of such "contributing factors" were identified:

- availability of substances and accessibility to substances near the work site;
- workplace norms regarding substance use; and
- work design characteristics.

Some work design characteristics are associated with higher likelihood of substance use. However, these work designs are common across Alberta. Simply being exposed to those work situations is not sufficient to lead to substance use problems. Many Alberta workers do shift work, work in remote locations, or travel on the job, with no adverse consequences. In effect, our findings support research conducted by the Ontario Ministry of Labour which found that many workers are exposed to workplace stressors such as repetitious duties, periods of inactivity or boredom, remote or irregular supervision, but relatively few become substance abusers. This point was also made by a participant in a focus group of workers undergoing treatment. When, in response to our questions, his peers began listing workplace characteristics that they associated with substance use, this individual reminded them not to "blame the world" for their problems.

Are substances available or accessible near work sites?

Alcohol is reported to be available near the workplaces of over half (56%) of the work force, but street drugs are reported available near the workplace of only 20% of the work force. Table 4.1 illustrates the availability of alcohol and drugs near the workplace across occupations. Alcohol is most available near the work sites of sales and managerial/professional occupations, and least available near the work sites of primary occupations. Drugs are most available near the work sites of managerial/professional occupations, and least available near the work sites of primary occupations.

Table 4.1
Availability of Alcohol and Drugs near the Work site by Occupation
(percentage of work force in occupation)

Occupation	Percentage of occupation work force specifying that	
	Alcohol is available nearby n=1,993	Drugs are available nearby n=1,667[14]
Managerial/professional	64.8	28.9
Clerical	60.5	18.6
Sales	65.8	20.8
Service	53.3	20.3
Primary	32.7	8.2
Processing	50.6	17.3
Construction	40.9	13.3
Transportation	44.9	11.7
Materials handling	45.4	11.3
Other	82.6	14.3
TOTAL	55.8	20.0

Availability of alcohol and drugs also varies across industries, as seen in Table 4.2. Alcohol is most often reported as readily available near the work sites of the telecommunications industry, and least often reported to be available near the work sites in the agriculture and forestry/mining industries. Drugs are most often reported to be readily available near the work sites of the utilities industry, and least often reported to be available near the work sites of the agriculture industry.

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[14] The number reporting on drug availability is considerably lower than the number reporting on alcohol availability due to the higher number of people who said they 'did not know' about the availability of drugs.

Table 4.2
Availability of Alcohol and Drugs near the Work site by Industry
(percentage of work force in industry)

Industry	Percentage of industry work force specifying that	
	Alcohol is available nearby n=1,987	Drugs are available nearby n=1,661
Agriculture	33.9	4.7
Forestry/mining	34.1	14.0
Construction	39.3	14.3
Telecommunications	71.5	25.1
Wholesale/retail	66.1	20.8
Education	59.4	30.6
Social services	50.1	29.1
Public administration	67.2	22.1
Upstream oil and gas	45.6	22.1
Manufacturing	51.8	21.3
Transportation	47.8	15.3
Utilities	52.0	32.7
Finance	64.0	17.6
Health care	51.6	17.7
Other services	67.4	22.1
Other	62.4	22.3
TOTAL	55.8	20.1

Table 4.3 illustrates the reported availability of alcohol and drugs near work sites according to the size of employers. Both alcohol and drugs are more likely to be reported as readily available near the work sites of larger employers.

Table 4.3
Availability of Alcohol and Drugs near the Work site by Size of Employer
(percentage of work force in same size employers)

Size of employer	Percentage of same size employer specifying that	
	Alcohol is available nearby n=1,964	Drugs are available nearby n=1,644
1 to 4 employees	47.7	12.9
5 to 9 employees	47.9	12.5
10 to 49 employees	56.4	21.6
50 to 99 employees	54.7	10.2
100 or more employees	59.3	23.5
TOTAL	55.9	19.9

Since the occupations reporting lower than average availability of substances (primary, construction, and transportation) also reported relatively heavy consumption, we hypothesized that availability, in itself, is not a primary factor in consumption. We tested this hypothesis by examining three different consumption variables (total consumption, frequency of consumption, and frequency of heavy consumption) in relationship to each of the availability variables. We found significant differences in consumption patterns in the case of alcohol served at work functions or special occasions at work in terms of the incidence of heavy drinking and total consumption. This suggests that serving alcohol at work functions not only sends a message about the acceptability of workers' drinking; it may also enable people to drink more than they would otherwise. The average consumption on a typical occasion was only associated with the permissibility of alcohol on the premises, as indicated in Table 4.4. The reported availability of alcohol **near the work site** was statistically related to the amount consumed on a typical occasion, but not to total consumption or to heavy use.

Table 4.4
Availability of Alcohol as a Factor in Consumption[15]
(among drinkers in the work force)

	Alcohol served at work-related functions n=1,513		Alcohol served at work, special occasions n=1,512		Alcohol permitted on premises n=1,499		Alcohol available near work site n=1,504	
	Yes	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**
Average consumption on a drinking occasion (drinks)	2.8	2.8	3.1	2.8	2.7	2.9	3.0	2.9
Number of times consumed 5+ drinks at a time in last 12 months	7.5	5.1	9.5	5.6	5.6	5.8	8.0	5.9
Average total weekly consumption (drinks)	4.7	3.1	5.2	3.1	3.7	3.3	4.2	3.6

Having a work group eat and drink together is widely seen as enhancing the cohesiveness of the team. Co-workers see each other as people. However, the "beer and pizza" practices may also break down barriers between work and social life. Under half of the work force (41%) indicated that people in their workplaces go for a drink together at lunch. Seventy percent, however, indicated that people do go for a drink together after work. Less than a quarter (24%) of the work force said that alcohol is served at work-related functions away from the workplace, and under 5% said that alcohol is served at the workplace on special occasions. Over half (56%) the work force respondents reported that alcohol is allowed on the work premises.

As illustrated in Table 4.5, both employer and union representatives indicate that alcohol is commonly served at company functions, and is occasionally served on company premises on special occasions. They both report, however, that in most cases alcohol is not regularly served on company premises, and that it is permitted on the premises only sometimes. Over half of the employer and union respondents report that alcohol is available near the main work site(s). One-fifth of employer respondents and one-third of union respondents report that street drugs are available near the main work site(s) at least sometimes.

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[15] Shading = statistically significant ($p<.05$) difference

Table 4.5
Norms Regarding Alcohol Use
(percentage of respondents to each survey)

Norm	Prevalence of norm reported			
	Employers		Unions	
	Sometimes	Almost always	Sometimes	Almost always
Alcohol is served at company functions	55.6	34.1	45.0	40.0
Alcohol is served on the company's premises on special occasions	49.4	13.1	45.0	25.0
Alcohol is regularly served on the organization's premises	14.8	7.7	21.6	13.5
Alcohol is permitted on the premises	42.7	9.9	40.0	17.5
Alcohol is readily available near main work site(s)	11.9	46.1	17.5	40.0
Street drugs are available near main work site(s)	11.8	9.2	20.5	15.4
Co-workers go for a drink together after work	80.1	6.9	87.5	7.5
Co-workers socialize with each other	79.1	16.8	70.0	27.5
Co-workers go for a drink together at lunch	41.9	1.3	n/a	n/a
Alcohol is served at union functions	n/a	n/a	52.5	30.0
Alcohol is served on the union premises	n/a	n/a	27.5	12.5

The employer survey found a relationship between the reported availability of alcohol and industry and size of an employer. Reported availability of alcohol is greater near the work sites of organizations in the social services, education, finance, telecommunications/utilities, transportation, and upstream oil and gas industries. Availability is also greater near larger organizations. There is also a relationship between the availability of drugs and the industry and size of employers. Drugs are more often reported to be readily available near telecommunications/utilities, upstream oil and gas, and hospital/health care industry work sites.

The union survey found no relationship between the number of members a union has in Alberta and the reported availability of alcohol or drugs near the main work site(s). Finally, there is no significant relationship between alcohol and street drug availability near main work site(s) and the major occupation or industry represented by a union. Representatives from large and small unions covering a range of industries were equally likely to report alcohol or drugs being available near their work sites. Reported availability was not linked to the perceived seriousness of the drug or alcohol problems.

What workplace norms exist in the Alberta workplace regarding substance use?

One of the challenges for employers and unions is in positioning the work-related social context of serving alcohol with the overall need not to encourage alcohol consumption. There is a risk of sending mixed messages. The contrast between the very low tolerance for drinking **on the job** and the acceptance of drinking as a social activity in and around the workplace or with co-workers is noticeable.

Workers generally do not agree that it is okay to drink on the job because everyone does it or when the supervisor knows. A quarter (25%) of workers do agree that it is okay to drink when you are entertaining a client. Opinions on the acceptability of drinking on the job in various situations do not vary significantly between occupations, as illustrated in Table 4.6. Although workers in service occupations are slightly less likely to view drinking as acceptable when entertaining a client, workers in sales occupations are slightly more likely to view drinking as acceptable when entertaining a client.

Table 4.6
Acceptability of Drinking on the Job by Occupation
(percentage of work force in occupation)

Occupation	It is okay to drink		
	On the job because everyone does it n=2,007	On the job when the supervisor knows n=2,003	When you are entertaining a client n=1,953
Managerial/professional	0.0	1.7	29.2
Clerical	0.0	1.3	20.6
Sales	1.1	2.1	31.9
Service	0.4	2.2	15.2
Primary	0.6	3.5	27.7
Processing	0.6	1.1	19.9
Construction	0.7	3.0	30.0
Transportation	0.0	1.3	21.6
Materials handling	0.0	1.8	19.2
TOTAL	0.3	1.9	24.7

Although over half the respondents in the work force survey indicated that alcohol was permitted on the premises, only a tiny proportion of respondents indicated that it was "okay to drink on the job." Indeed, the only circumstance in which a larger number of respondents, albeit still a minority, accepted that it was alright to drink on the job was if it entailed entertaining a client. It should be noted that, later in the survey, respondents reported that having to entertain clients contributed to their alcohol use. There was no difference across occupations or industry on the first two norms, but sales, managerial/professional, and construction staff were more likely to accept drinking on the job in connection with client entertainment. However, we found no statistically significant difference in any of the consumption variables, when comparing those who drank in connection with client entertainment and those who did not. Thus, in and of itself, entertaining clients is not a predictor of heavier consumption.

How do work design characteristics relate to substance use?

It has been suggested that certain work design characteristics can predispose a worker to substance use. For example, concern exists over the effect of characteristics such as shift work and working in remote locations. The surveys therefore identified work design characteristics of respondents' jobs in an effort to determine the relationship between these characteristics and substance use.

Some job characteristics are associated with heavier or more frequent alcohol consumption. Whether this means that the job characteristics put people at risk or whether certain job characteristics tend to attract people who are predisposed to high levels of consumption is not clear. Table 4.7 illustrates frequency of drinking by work design characteristics.

The work force survey revealed that no significant relationship exists between the frequency of drinking (daily, weekly, etc.) and most job design characteristics. Working at a remote work site and travelling on the job were two design characteristics that were related to drinking frequency. However, the relationship is not exactly what was expected. People who work at remote work sites are **less** likely to drink frequently (daily or four to six times a week) than are those who do not work at remote sites. On the other hand, they are more likely to drink on a weekly basis. They tend to drink more each time they drink, resulting in higher average levels of consumption. Those who travel on the job are somewhat more likely than the average person to drink on a daily basis. It is possible that they have more access to alcohol in their travels by plane or simply more free time to spend, perhaps in a hotel bar.

Table 4.7
Frequency of Drinking by Work Design Characteristics
(percentage of the work force with/without each work design characteristic)

Work design characteristic		**Frequency of drinking**					
		Every day	**4-6 times a week**	**2-3 times a week**	**Once a week**	**1-3 times a month**	**<Once a month**
Shift work	yes; n=380	2.3	2.2	16.0	20.4	31.6	27.4
	no; n=1,179	3.3	3.7	16.9	22.3	27.1	26.8
Boredom	yes; n=394	4.1	3.2	17.9	20.6	31.1	23.2
	no; n=1,166	2.7	3.3	16.2	22.3	27.2	28.2
Repetitive tasks	yes; n=847	2.2	2.4	14.2	22.4	30.0	28.7
	no; n=711	4.1	4.4	19.6	21.2	26.0	24.7
On-call work	yes; n=507	3.9	3.6	16.6	22.6	26.1	27.2
	no; n=1,052	2.7	3.2	16.7	21.5	29.1	26.8
Remote work site	yes; n=531	2.8	3.6	20.1	24.6	25.5	23.3
	no; n=1,023	3.2	3.2	14.9	20.5	29.3	28.9
Travelling	yes; n=618	4.2	2.7	19.6	25.0	26.4	22.1
	no; n=941	2.4	3.7	14.7	19.8	29.3	30.1
Entertaining	yes; n=388	3.5	6.2	18.0	22.3	23.5	26.5
	no; n=1,172	2.9	2.3	16.2	21.8	29.7	27.1
Average overall frequency of drinking		3.0	3.3	16.8	22.1	27.9	26.9

We also examined the average consumption during a typical drinking occasion in terms of the various work design characteristics. Shift work, boredom on the job, repetitive tasks, remote work sites, and travel on the job are all associated with higher levels of consumption in the typical drinking episode, as seen in Table 4.8. Table 4.8 also illustrates that on-the-job travel, boredom on the job, and a remote work site are all factors that differentiate high total average weekly consumption from lower average weekly consumption.

Table 4.8
Drinking Patterns by Work Design Characteristics

Work design characteristic	Average number of drinks consumed on a typical drinking occasion by workers		Average total weekly consumption of workers	
	With characteristic	Without characteristic	With characteristic	Without characteristic
Shift work n=1,559	3.17	2.72	4.02	3.51
Boredom n=1,560	3.33	2.66	4.69	3.28
Repetitive tasks n=1,559	2.99	2.65	3.53	3.77
Remote work site n=1,554	3.13	2.67	4.50	3.20
On-call work n=1,560	2.86	2.81	4.08	3.43
Travel on the job n=1,560	2.98	2.73	4.15	3.30
Entertaining n=1,560	2.72	2.87	3.83	3.57

While those who travel on the job tend to drink more frequently, they do not drink much more than the average person on each drinking occasion. However, their frequency of drinking means that they tend to drink more than average volumes on a weekly basis. Work involving repetitive tasks was not associated with drinking frequency. However, we found that people who reported their work involved repetitive tasks also reported consuming a more than average number of drinks on a single drinking occasion, as noted below. Repetitive tasks were not associated with higher total consumption though.

The three work design characteristics that appear to have the greatest impact on total weekly consumption are shift work, work at a remote work site, and travel on the job. These three characteristics are similar in that each of them impinges on the personal social life of the individual worker. A person on shift work, a remote work site, or a job with considerable travel must shape his/her social life somewhat differently from a person in a more typical job. We thus examined the social contexts in which people report drinking, comparing these across various dimensions of work design. We found significant relationships in only two cases. People who work at remote work sites were more likely to report frequent drinking with co-workers. People who report working long hours were more likely to report drinking alone. There were not significant differences in the patterns of drinking with friends and family in terms of any of the work design variables.

Despite these relationships between work design and consumption, the work force respondents working in these types of work situations (that is, doing shift work or travelling on the job) were not different from the overall work force in their **perception** of the seriousness of the overall substance use problem. In contrast, employers with a higher number of employees in shift work indicate more concern about drug use than do those employing low numbers of employees working shifts. Both employer and union representatives were asked to rate the extent to which they feel certain work design characteristics contribute to substance use problems in the workplace. The lists of work design characteristics provided in both surveys were virtually identical, except that the employer survey included the characteristics of having to entertain clients and being entertained by others.

Work design characteristics identified by both employer and union representatives as contributing to substance use are work sites that are remote from home or isolated, work requiring extensive travel or periods away from home, and a lack of recreation facilities at remote work sites or layover points. Repetitive tasks, having a bar or liquor store near the work site, availability of hiding places in the work site, long work hours, and on-call situations were indicated to contribute to substance use problems in the workplace to a moderate extent by approximately 25% of respondents.

How does job stress relate to alcohol use?

Exploratory focus groups and interviews we conducted indicated that many people perceive that alcohol abuse is related to job stress. People theorized that those in more stressful jobs would drink to relieve their stress. Indeed, many people seemed to rationalize their own or their co-workers' drinking behaviour in terms of coping with stress. Employers and union representatives agreed that stress on the job is the work design characteristic that contributes most significantly to the incidence of substance use problems on the job. Sixteen percent of employer respondents and 43% of union respondents identified stress on the job as contributing to substance use problems to a great extent. We asked all the work force respondents to rate the stress level in their job, and we followed up to determine the perceived source of stress.

Twenty-two percent of Alberta workers describe their jobs as not at all stressful. Over half (57%) describe their jobs as somewhat stressful. The remaining 21% describe their jobs as extremely stressful. These workers were asked to indicate what makes their jobs so stressful. Their first responses are indicated in Table 4.9.

Table 4.9
What Makes Workers' Jobs Stressful
(percentage of work force describing their jobs as extremely stressful)
n=426

Stressor	Percentage of respondents specifying that stressor
Other	19.7
Too much responsibility for the work of others	19.2
Heavy workload interferes with how well work gets done	15.8
Need to satisfy too many people	14.7
Mistakes could be costly	12.8
Too much overtime	4.7
Not enough help or equipment to get the job done	3.2
Unclear expectations of what is a good job	2.3
Unable to influence your immediate supervisor's decisions and actions that affect you	2.1
Job tends to interfere with family life	1.9
Unsafe	1.5
Trapped in a job you don't like but can't get out of	1.1
Have to do things that are against your better judgement	1.0

However, when we examined perceived job stress against the consumption variables, we found no significant relationship. Mean levels of consumption were virtually the same for those who found their jobs not at all stressful, somewhat stressful or extremely stressful. Similarly, we found no significant relationship between perceived job stress and reported current use of street drugs.

The perceived relationship between substance use and job stress is not supported in this research. While a significant proportion of the Alberta work force perceive their jobs as stressful, they do not all turn to substance use. While those who are heavy substance users may rationalize their substance use by referring to their need to relax, it is clear that the majority of workers who find their jobs stressful do not drink heavily. Those involved in counselling workers with substance use problems may want to give some attention to developing other means by which workers can cope with stress. Examples might include programs to assist them in balancing work and family or workplace fitness.

What are the implications for managers and unions?

Restricting the availability of alcohol or drugs has long been a central element in controlling substance use problems. Both alcohol and drugs are reported to be widely available near Alberta work sites. Workers reported minimal differences in the reported availability to work sites in different industries or with different occupations. Employers perceive more differences in availability than do workers themselves. However, the work force survey also revealed that availability is not associated with the frequency of use or total consumption. Thus, simply restricting the availability of drugs or alcohol at or near the workplace is not likely to have a direct effect on consumption. Security measures and prohibition of substances on the premises are more likely to work indirectly, by sending a message reinforcing workers' fundamental sense that drugs/alcohol do not mix with work. Workplace norms do not support the use of alcohol or drugs on the job. However, when alcohol is served at work functions or when workers tend to go for a drink together, there is a risk that mixed messages are sent. Those workers looking for justification for their substance use may find it in a supervisor's invitation for a drink or drinks served at a work function.

Work design characteristics most associated with heavier than average alcohol consumption are working at a remote work site, shift work, and travel on the job. In each case, the work situation impinges on the possibility of a worker following typical social patterns, interacting with family and friends on evenings and weekends. While we cannot conclude that the work situation either causes or encourages these consumption patterns, it definitely appears that workers in these situations are more likely to drink heavily. Thus, it might be beneficial to target these workers for special attention in programs to identify and deal with substance use. Relatively few workers attribute their substance use problems to characteristics of the work situation. Simply raising workers' awareness of potential problems and providing alternatives could reduce their risks.

Section 5
Impacts of Substance Use

This section of the report answers the following questions:

What are the perceived risks associated with substance use in the work force?

Do workers attribute personal problems to their substance use?

What workers report more problems associated with substance use?

What problems were most often attributed to substance use?

How does substance use affect the workplace?

How concerned are employers and unions about the effects of substance use in the workplace?

What is the estimated cost of performance problems related to substance use?

What are the implications for managers and unions?

5. IMPACTS OF SUBSTANCE USE

There is a growing recognition of the importance of human resources in the productivity and competitiveness at the firm level, as well as at a more macro-economic level. The health and fitness of the work force are key ingredients in achieving optimal levels of productivity. Substance use has the potential to affect an individual's job performance, and, in turn, the performance of the work group. Substance use also has the potential for more severe effects on worker health and safety. Understanding the nature and scope of the impacts of substance use in the Alberta work force sets a foundation for dealing with the situation. To help specify the nature and level of this impact, questions in all three surveys were used to assess the impact of substance use in the workplace in the last four weeks prior to the survey.

What are the perceived risks associated with substance use in the work force?

Much of the prior research on substance use in the workplace has been aimed at safety-sensitive occupations or sectors.[16] Indeed, AADAC's funding for this research came from the Alberta Heritage Occupational Health and Safety Heritage Grant Program. The question of the occupational safety implications of substance use in the workplace was an important one. Recent research by Alberta Occupational Health and Safety had found that there was a relatively low prevalence of alcohol or drugs among occupational fatalities.[17] The researchers studied Medical Examiners' data on alcohol and drug testing of 459 victims of fatal workplace injuries. They found that alcohol was the drug most often implicated; but less than 10% had any alcohol in their blood, while about 4% had blood alcohol levels greater than the legal limit for driving in Alberta. The researchers also considered the nature of the occupational accidents, finding that 65% of the fatal accidents in which alcohol was subsequently detected involved falls, use of a motor vehicle, or being caught in/under. They concluded that alcohol could have been a factor in any of these types of accidents. While the incidence of alcohol-related fatalities was not high, the researchers emphasized the low tolerance for risks to occupational safety.

About 28% of all fatalities investigated by Alberta Occupational Health and Safety over the past 10 years involved workers in the construction industry, with a further 22% involving those in oil, gas and mining. However, relative to the level of employment, forestry shows the highest fatality rate over the same period, with transportation also showing relatively high fatalities. Data on Workers' Compensation Board lost time claims indicate that forestry, construction, upstream oil and gas, and certain manufacturing sub-sectors (e.g., metal fabrication and meat packaging) are high risk sectors. Workers' Compensation data also indicate that trucking is the highest risk sector within transportation.[18] Because of the historical industry pattern of accidents and fatalities, there is particular concern about alcohol and substance use in these sectors. In order to understand the nature of the workplace impacts of substance use, we asked questions in all three surveys about the perceived risks associated with impaired job performance.

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[16] Appendix B summarizes prior research in this area.

[17] Brian C. Alleyne, Patricia Stuart, Raymond Copes, "Alcohol and Other Drug Use in Occupational Fatalities," Journal of Occupational Medicine, Vol. 33 No. 4, April 1991. Alberta Occupational Health and Safety investigated an average of 48 fatalities annually between 1976 and 1990.

Employer and Union Perspective

We asked employer and union representatives to estimate the chances of each of these outcomes resulting from poor job performance by a worker in their largest occupational group. Table 5.1 indicates their responses.

Table 5.1
Chances of Outcomes Resulting from Poor Job Performance
(percentage of respondents)

Chance of	According to employers n=325				According to unions n=40			
	None	Very slight	Moderate	Quite good	None	Very slight	Moderate	Quite good
Injuring him/herself	8.2	28.7	29.3	33.8	15.0	25.0	32.5	25.0
Injuring a co-worker	10.1	37.5	28.4	24.0	17.5	27.5	30.0	22.5
Injuring someone else	20.1	44.1	20.1	15.7	17.5	37.5	30.0	12.5
Damaging environment	31.9	43.1	15.7	9.3	25.6	46.2	15.4	10.3
Damaging equipment/ property	5.1	25.7	38.7	30.5	5.1	28.2	41.0	23.1
Hurting organization reputation	1.3	16.1	25.9	56.6	0.0	7.7	30.8	59.0
Causing organization to lose money	4.7	24.4	32.0	38.9	12.8	33.3	25.6	25.6

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[18] In this regard, it should be noted that the transportation sector has already taken action to prevent on-the-job drinking.

Both employers and union representatives reported the most likely outcome would be that the reputation of the organization would be hurt. Focus group participants explained that the subtle impacts of substance use often lie in reduced quality of service or product quality. Neither employers nor union representatives rated the chances of workplace injury as predominant, although they rated the possibility of a worker injuring himself/herself as the third most likely outcome.

Recent press coverage of major accidents has shown the negative consequences for the environment. Workers in focus groups also discussed environmental consequences of workplace accidents. The likelihood of damaging the environment was not seen as very common by either unions or employers. However, as with the worker/public safety risks, the tolerance for such incidents is very low.

The overall concurrence between employer and union representatives should be noted: both groups agree on the overall chances of various outcomes, with the exception of causing the organization to lose a lot of money. As would be expected, employer representatives see a greater chance of this impact than do union representatives.

Work Force Perspective

The work force perceive risks in a manner very similar to the employers and unions. Work force respondents were given six risk types and asked to rate the chances of that outcome if they did not perform their jobs properly. Table 5.2 shows the pattern of responses.

Table 5.2
Work Force Perceptions of Risks Associated with Own Poor Job Performance
(percentage of the work force)

If, for any reason, you did not do your job well, what are the chances of...	No chance	Very slight chance	Moderate chance	Quite a good chance
Physically injuring yourself or a co-worker (n=2,002)	50.0	20.2	11.4	18.4
Physically injuring someone outside the organization (e.g., client, patient, general public) (n=2,000)	67.5	15.0	6.6	11.0
Damaging/polluting the environment (n=1,997)	70.9	13.0	7.8	8.2
Damaging the company's equipment or property (n=2,004)	45.7	23.3	11.9	19.1
Hurting the reputation of the organization (n=2,001)	30.1	18.1	17.8	34.0
The organization losing a lot of money (n=1,993)	38.1	17.4	15.4	29.1

Overall, the majority of the work force perceive there is no chance or a very slight chance of a workplace injury, injury to someone outside the organization, or damage to equipment/property or to the environment if they do not perform their jobs well. By comparison, the majority of the work force perceive there is a moderate to good chance of damaging their firm's reputation or costing their employer a lot of money if they perform poorly.

Table 5.3 compares blue-collar and white-collar workers in terms of their perceived risks associated with poor job performance. As would be expected, blue-collar workers see a relatively higher chance of personal injury, injury of co-workers or of a third party, or damage to the environment or to company property or equipment. Both groups are equally likely to see a risk to the company's reputation, although blue-collar workers see a greater risk of major financial loss associated with poor performance of their jobs.

Table 5.3
Work Force Perceptions of Risks Associated with Own Poor Job Performance

If, for any reason, you did not do your job well, what are the chances of...	**No chance**		**Very slight chance**		**Moderate chance**		**Quite a good chance**	
	White[19]	**Blue**	**White**	**Blue**	**White**	**Blue**	**White**	**Blue**
Physically injuring yourself or a co-worker	61.9	23.0	19.5	21.7	9.0	16.9	9.6	38.4
Physically injuring someone outside the organization (e.g., client, patient, general public)	74.1	52.6	12.5	20.6	5.0	10.1	8.4	16.7
Damaging/polluting the environment	78.1	54.7	11.3	16.8	5.5	13.2	5.1	15.3
Damaging the company's equipment or property	53.4	28.2	25.6	17.9	9.9	16.4	11.0	37.6
Hurting the reputation of the organization	30.1	30.0	19.0	16.1	16.9	19.8	34.0	34.1
The organization losing a lot of money	42.4	28.0	18.7	14.3	13.0	21.0	25.8	36.7

Non-drinkers tended to see a greater probability of injuring themselves due to poor job performance. It is possible that some people in higher risk jobs choose not to drink. It is also possible that non-drinkers are more cautious in general. However, overall consumption patterns were not related to perceived risk associated with poor job performance. People in jobs they themselves considered risky were no more likely to be light or infrequent drinkers than their counterparts in less apparently risky jobs. In other words, we have no evidence to suggest that people choose their drinking patterns based on their own perceptions of the risks associated with their jobs. This finding suggests that the threat of negative consequences is not, in itself, a deterrent to high alcohol consumption. A risk-based message is not likely to be the key in convincing people to reduce their substance use.

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[19] The following occupations are defined as white collar: manager, professional, clerical, sales and service. The following occupations are defined as blue collar: primary, processing, construction, transportation and materials handling.

Do workers attribute personal problems to their substance use?

Although they may acknowledge certain risks associated with poor job performance, and may also acknowledge their own consumption patterns, workers are unlikely to seek help in dealing with their substance use unless they themselves accept they have a problem linked to substance use. As a means of assessing the extent to which people have problems attributed to substance use, we asked them whether they had experienced certain indicators of alcohol or drug use problems in the last 12 months.[20] Just under 60% of current drinkers reported no experience with such problems. Blue-collar workers were somewhat less likely to report no problems. This pattern of problems attributed to their own alcohol use is shown in Table 5.4.

Table 5.4
Number of Problems Reported Attributed to Alcohol Use
(percentages of all drinkers)
n=1,608

	White	**Blue**	**All**
No problems reported	32.5	24.9	57.3
One problem reported	10.9	12.0	22.9
Two problems reported	5.3	4.1	9.5
More than two problems reported	4.8	5.5	10.3

A parallel set of questions was posed for drug users, dealing with their drug use. Generally speaking, drug users were just as likely as drinkers to report problems attributed to their substance use. About two out of every five drug users and a similar proportion of drinkers reported at least one problem due to substance use. About 23% of drinkers compared with 20% of drug users reported one problem. Over 9% of drinkers compared with 6% of drug users reported two problems. However, 12% of drug users compared with 10% of drinkers reported more than two problems. In Section 2, we reported that the vast majority of drug users were also drinkers. Table 5.5 shows that the majority of drug users report problems attributed **either** to their drug use or their alcohol use. Less than a quarter of all drug users report no problems with either drugs or alcohol.

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[20] The list of problems considered included: traffic violations, being able to consume more than others, problems with family/friends or co-workers, trying to cut down on substance use, being annoyed by people telling them to cut down, feeling guilty, using alcohol or drugs as an "eye-opener", being unable to remember what happened after drinking or taking drugs, legal or financial problems, and problems on the job due to substance use.

Table 5.5
Number of Problems Reported Attributed to Drug Use and Alcohol
(percentages of all drug users)
n=121

Number of problems attributed to alcohol use	Number of problems attributed to drug use			
	No Problems	One Problem	Two problems	More than two
No problems	24.6	3.6	0.5	0
One problem	19.0	6.6	0.9	2.2
Two problems	4.9	2.9	1.3	1.0
More than two problems	13.2	7.2	3.1	9.0

What workers report more problems associated with substance use?

The number of problems attributed to alcohol use was highly correlated with each of the consumption variables: frequency of drinking, average amount consumed, incidence of heavy drinking, and total consumption. The highest correlation was with total consumption. Heavy users tended to report more problems. There were distinct demographic patterns in the numbers of problems reported. These patterns generally do coincide with the consumption patterns. Thus, for example, young people tended to report relatively more problems. People who were never married tend to report relatively more problems than those who are married. Similarly, the industrial pattern of problem reporting coincides with consumption patterns: workers in the construction, forestry/mining, and upstream oil and gas sector were more likely to report problems. The relationship between industry and the number of problems people attribute to alcohol use is shown in Table 5.6.

Table 5.6
Number of Problems Attributed to Alcohol Use by Industry
(percentage of current drinkers per industry)
n=1,591

	No problem	1 problem	2 or more problems
Agriculture	75.3	17.0	7.7
Forestry/mining	35.2	34.4	30.4
Construction	52.5	26.2	21.4
Telecommunications	42.9	35.5	21.6
Wholesale/retail	57.0	19.2	23.8
Education	76.4	13.4	10.2
Social services	67.1	23.8	9.1
Public administration	67.0	22.7	10.3
Upstream oil and gas	46.8	29.3	23.8
Manufacturing	62.1	18.6	19.3
Transportation	57.3	26.6	16.1
Utilities	52.0	23.7	24.3
Finance	72.3	11.1	16.6
Health care	54.9	27.0	18.0
Other services	64.4	22.0	13.6
Other	54.6	21.6	23.8

While we did not find a significant relationship between consumption and duration of employment, Table 5.7 shows the significant relationship between duration of employment and reported problems attributed to alcohol use. Longer-term workers are less likely to have reported problems, while those with tenures less than a year were more likely to have reported one problem, and considerably more likely to have reported two or more problems.

Table 5.7
Number of Problems Attributed to Alcohol Use by Duration of Employment
(percentage of drinkers in the work force)
n=1,287

	No problem	1 problem	2 or more problems
Less than a year	52.7	18.9	28.3
1 to 5 years	57.6	20.8	21.6
Over 5 to 10 years	61.4	19.9	18.7
More than 10 years	56.3	28.6	15.1
Over 25 years	76.3	14.9	8.8

Employment size showed a relationship with the number of reported problems - workers in smaller businesses tended to report no problems or one problem, as shown in Table 5.8.

Table 5.8
Number of Problems Attributed to Alcohol Use by Employer Size
(percentage of drinkers in the work force)
n=1,581

	No problem	1 problem	2 or more problems
1 to 4 employees	66.7	20.0	13.3
5 to 9 employees	65.5	24.2	10.3
10 to 49 employees	54.8	23.1	22.1
50 to 99 employees	60.1	16.5	23.4
100 or more employees	58.0	22.3	19.7

The reporting of problems with substance use shows demographic patterns that are similar, but not identical, to the consumption patterns. Marital status is associated with reporting of certain problems, with persons who are separated and those who are single or never married tending to report problems relatively more frequently. This pattern is shown in Table 5.9.

Table 5.9
Number of Problems Attributed to Alcohol Use by Marital Status
(percentage of drinkers in the work force)
n=1,609

	No problem	1 problem	2 or more problems
Married	65.1	22.1	12.9
Separated	49.5	27.3	23.2
Divorced	60.5	17.7	21.8
Widowed	83.5	16.5	0.0
Never Married	45.5	22.5	32.0

Age and gender are also associated with reporting of certain problems. Young men typically reported higher than average rates, while women and older people were less likely to report problems. Tables 5.10 and 5.11 show this pattern.

Table 5.10
Number of Problems Attributed to Alcohol Use by Age
(percentage of drinkers in the work force)
n=1,600

	No problem	1 problem	2 or more problems
15 to 24	42.7	23.6	33.7
25 to 34	56.1	24.4	19.5
35 to 44	64.4	21.1	14.5
45 to 64	70.5	18.1	11.5
65 and over	73.4	26.6	0.0

Table 5.11
Number of Problems Attributed to Alcohol Use by Gender
(percentage of drinkers in the work force)
n=1,595

	No problem	1 problem	2 or more problems
Male	56.2	23.1	20.6
Female	63.6	20.2	16.2

Education was associated with the numbers of problems attributed to alcohol use, with persons with more education less likely to attribute problems to alcohol use, as shown in Table 5.12.

Table 5.12
Number of Problems Reported by Education Level
(percentage of respondents in work force)
n=1,599

	No Problem	1 Problem	2 or More Problems
Not high school	55.5	21.6	22.9
High school	57.3	23.6	19.1
Some college	57.5	19.9	22.5
Completed trade	56.1	25.7	18.2
Completed college	62.8	20.2	17.0
One or more degrees	66.5	21.1	12.4

Income is not significantly related to numbers of reported problems.

What problems were most often attributed to substance use?

The work force survey embedded the CAGE questions in the set of problems. These are a set of questions frequently used in diagnosing alcohol problems, and include:

- Have you tried to **C**ut down on your drinking?
- Have you been **A**nnoyed by people telling you to cut down?
- Do you feel **G**uilty about your alcohol use?
- Do you use alcohol as an "**E**ye-opener"?

These four questions have been used since the mid-70s in general clinical settings in screening for alcohol problems. Literature suggests that the questions are more sensitive in a psychiatric setting than in a more general setting. They are not good indicators in themselves of heavy non-dependent drinking. However, in the AADAC survey, separate questions addressed consumption. In the general community context (including this work force context), the CAGE questions are considered better at indicating people who are already aware of their alcohol problems.

Trying to cut down on alcohol use was by far the most heavily acknowledged indicator of an alcohol problem, counting both the CAGE indicators and the other indicators included in the survey. Similarly, trying to cut down on drug use was the most commonly reported problem indicator among drug users. Indeed, relatively more drug users than drinkers acknowledged having tried to cut down. These indicators are interesting in that they are also a more positive form of acknowledging a problem. The individual is action-oriented. Moreover, our analysis shows that people who acknowledge other problems also tended to acknowledge having tried to cut down on their alcohol or drugs. While the relatively heavy reporting on cutting down naturally allows for more overlap, it also suggests that this acknowledgement of an attempt to cut down may be a pre-cursor to acknowledging other substance-related problems. On the other hand, heightened awareness of general health or other problems associated with drinking or drug use may induce people to want to cut down, even though their current levels of drinking are not high.

More than one in seven drinkers attributed problems with family or friends to their own use of alcohol. It was the second most commonly reported indicator of problems. This frequency with which relationship problems were reported suggests that the broad brush approach to EAPs may attract clients who are concerned about interpersonal problems, but may be able to offer help on another level. This question is given further consideration in the next section.

Problems with family and friends were less extensively reported by drug users than drinkers. However, drug users were more likely than drinkers to report feeling guilty about their substance use. Drug users were also more likely than drinkers to report feeling annoyed by people telling them to cut down on their substance use.

Factor analysis revealed that the three most heavily reported problem indicators (trying to cut down on alcohol use, having problems with friends and family, and being able to drink more than others) tended to be associated with the reporting of other problems, while lightly reported problems were proportionately more likely to be single problems. This supports the notion of the commonly acknowledged problems as important indicators. Having had a traffic violation also emerged as an indicator of other problems. Agencies, such as AADAC, that get involved in dealing with traffic-related substance problems may find that clients also have other work and personal problems associated with their substance use.

The reported levels of specific problems attributed to alcohol and drugs are outlined in Tables 5.13 and 5.14, respectively. In both cases, the patterns of problems reported among blue-collar and white-collar workers are contrasted.

Table 5.13
Problems Attributed to Alcohol Use[21]
(percentages of all drinkers)

Problem type	All work force respondents	Blue-collar workers	White-collar workers
Had a traffic violation (n= 1,602)	2.0	4.1	1.2
Been able to drink more than others (n=1,588)	12.2	14.5	11.2
Had problems with family or friends (n=1,601)	15.6	13.6	16.4
Had problems with co-workers (n=1,602)	6.8	9.5	5.6
Tried to cut down on alcohol use (n=1,602)	16.7	18.5	15.9
Been annoyed by people telling them to cut down (n=1,602)	3.6	5.2	2.9
Felt guilty about alcohol use (n=1,602)	7.7	7.7	7.7
Used alcohol as an "eye-opener" (n=1,602)	2.1	2.9	1.7
Not able to remember what had happened while drinking (n=1,601)	9.6	13.1	8.1
Legal or financial problems due to alcohol (n=1,602)	1.7	2.6	1.3
Problems on the job (n=1,602)	1.1	2.1	0.6

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[21] Shading indicates significant differences p<.05.

Table 5.14
Problems Attributed to Drug Use[22]
(percentages of current drug users)

Problem type	All work force respondents	Blue-collar workers	White-collar workers
Had a traffic violation (n=125)	1.3	2.8	0
Had problems with family or friends (n=125)	10.7	13.9	7.9
Had problems with co-workers (n=125)	4.0	6.8	1.5
Tried to cut down on drug use (n=125)	25.0	30.3	20.4
Been annoyed by people telling them to cut down (n=124)	9.0	13.6	4.8
Felt guilty about drug use (n=125)	16.3	18.5	14.4
Used drugs as an "eye-opener" (n=125)	7.2	11.8	3.1
Not able to remember what had happened while using drugs (n=125)	6.9	5.8	7.9
Legal or financial problems due to drugs (n=125)	3.6	0	7.7
Problems on the job (n=125)	1.8	0	3.9

Specific problems reported often varied between men and women and by age, as shown in Tables 5.15 and 5.16.

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[22] Shading indicates significant differences $p<.05$.

Table 5.15
Problems Attributed to Alcohol Use by Gender
(percentages of all drinkers)[23]

Problem Type	Male	Female
Had a traffic violation (n=1,571)	3.1	.7
Been able to drink more than others (n=1,571)	14.8	8.6
Had problems with family or friends (n=1,585)	12.1	20.3
Had problems with co-workers (n=1,586)	7.7	5.7
Tried to cut down on alcohol use (n=1,586)	20.7	11.3
Been annoyed by people telling them to cut down (n=1,586)	4.4	2.6
Felt guilty about alcohol use (n=1,586)	8.2	7.0
Used alcohol as an "eye-opener" (n=1,586)	3.0	.9
Not able to remember what had happened while drinking (n=1,585)	11.5	7.2
Legal or financial problems due to alcohol (n=1,585)	1.9	1.5
Problems on the job (n=1,586)	1.8	.2

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[23] Shading indicates significant differences p<.05.

Table 5.16
Problems Reported by Age Group
(percentages of all drinkers)[24]
n=1,600

Problem Type	15 to 24	25 to 34	35 to 44	45 to 64	65 and Over
Had a traffic violation	3.5	2.2	2.0	.7	0
Been able to drink more than others	24.0	14.0	8.5	5.6	7.1
Had problems with family or friends	23.5	16.0	13.0	12.3	3.9
Had problems with co-workers	5.2	8.3	7.0	4.8	4.1
Tried to cut down on alcohol use	25.1	16.9	15.2	12.0	7.7
Been annoyed by people telling them to cut down	9.8	3.4	1.9	1.5	0
Felt guilty about alcohol use	11.1	8.4	7.3	4.7	0
Used alcohol as an "eye-opener"	2.6	2.7	1.7	1.0	3.9
Not able to remember what had happened while drinking	22.4	10.5	5.6	3.7	0
Legal or financial problems due to alcohol	2.8	2.3	1.5	.3	0
Problems on the job	1.0	1.5	.8	1.0	0

How does substance use affect the workplace?

Focus groups and interviewees in the exploratory phase of the research emphasized the need for responses to substance use, which reflected the specifics of particular situations and were, in effect, performance-based. Background research identified a series of performance gaps that could occur in many workplaces, and that could be attributed to substance use. The three surveys determined the prevalence of these incidents over the last four weeks. It should be noted that employers and unions reported on incidents that came to their attention. Work force respondents reported on incidents affecting themselves and their co-workers.

About three-quarters of work force respondents reported none of the incidents, while over 8% reported four or more incidents. This pattern is shown in Table 5.17.

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[24] Shading indicates significant differences $p<.05$.

Table 5.17 **Number of Incidents Reported Over the Last Four Weeks** **(percentage of work force)** **n=1,965**	
0 Incidents	77.6
1 Incidents	7.3
2 Incidents	4.3
3 Incidents	2.7
4+ Incidents	8.1

Table 5.18 shows the proportion of the work force, employers, and unions reporting the occurrence of each separate incident over the four weeks prior to the survey. Because they are in a supervisory position, employers and union representatives may be more likely to be made aware of such incidents.

Table 5.18
Reported Substance Use Incidents in the Workplace
(percentage of respondents to each survey)

Incident	Reported awareness of the incident		
	Work force	Employers	Unions
A worker:			
arrived late for work	11.4	27.1	30.8
missed a day of work	13.5	28.9	39.5
was sent home from work due to apparent impairment	23.1	8.4	10.5
was sent home from work due to apparent hangover	24.1	6.8	16.2
was caught using alcohol on the job	3.5	4.9	7.9
was caught using drugs on the job	1.2	1.0	2.6
who was on-call arrived at work apparently impaired	5.6	4.3	5.3
was assigned other duties for the shift/day	2.3	2.9	7.9
was reassigned for a longer period of time	1.6	2.9	5.3
made a lot of mistakes due to apparent impairment	5.3	4.9	15.8
took leave to undergo treatment for an apparent substance use problem	N/A	14.0	36.1
worked at a slow pace due to apparent impairment	9.8	13.2	23.7
was dismissed due to an apparent substance use problem	17.0	11.1	21.1
was suspended due to an apparent substance use problem	13.1	4.9	20.5
was injured on the job due to his/her impairment	0.9	0.3	0.0
whose impairment resulted in injury to a co-worker	0.4	0.7	0.0
whose impairment resulted in injury to someone outside the organization	0.3	0.3	0.0
whose impairment resulted in damage to equipment or property	2.0	2.6	0.0
with apparent substance use problems was caught stealing company or client property	2.2	2.3	0.0
with apparent substance use problems was suspected of sabotaging equipment	1.2	0.3	0.0
had a fight or conflict with another worker apparently due to substance use	5.6	3.0	5.3
took extended leave due to a substance use problem	11.6	8.1	N/A
who was impaired was the subject of a customer or client complaint	N/A	4.6	N/A

As expected, most of these events occur relatively infrequently. However, the most common occurrences tend to relate to absenteeism or to work slowdowns. These incidents typically have a low profile in the workplace and, indeed, may even go unnoticed. Despite their low profile, the cumulative costs of these performance problems can be considerable. The higher profile incidents are reported to occur very infrequently. No one reported a work-related accident resulting in injury as being attributable to substance use. In effect, the workplace impacts of substance use appear to be predominantly low key, rather than the high profile impacts of accidents.

We conducted a factor analysis to determine which incidents seem to occur together.[25] We found the incidents tied themselves to four factors that can be defined in terms of severity, as indicated in Table 5.19.

Table 5.19
Factor Analysis of Workplace Incidents Attributed to Substance Use

Low Profile Productivity Problems	Problems Leading to Supervisory Action	Security Problems Leading to Longer-term Supervisory Action	Health and Safety Problems
Worked very slowly due to impairment	Been assigned other duties for the day due to being drunk or high	Been dismissed due to a substance use problem	Drunk or high on the job and had an accident that resulted in damage to equipment or property
Made a lot of mistakes due to being drunk or high	Been sent home from work due to being drunk or high	Caught stealing company or client property	Drunk or high on the job and had an accident that resulted in injury to the worker
Arrived at least an hour late for work	Been caught using alcohol on the job	Been suspected of sabotage	Been reassigned for a longer period due to substance use problems
Missed a day of work due to substance use			
Had conflict with boss or co-worker due to substance use			

The first cluster of these incidents was reported most widely. Indeed, just over 67% of all reported incidents were in this category. The other three categories collectively accounted for a third of the incidents, with those in the third and fourth clusters (security incidents leading to longer-term supervisory action, and health and safety problems) reported somewhat more frequently than other problems leading to supervisory action.

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[25] The reported distribution of the incidents was skewed, with most people reporting no occurrence of an incident. We thus normalized the variables prior to conducting the factor analysis. The technical note in Appendix C explains these processes.

The first set of incidents encompass productivity-related problems due to absenteeism or inattention. Workers are absent, arrive late, work slowly, or make mistakes. These problems may go unnoticed by the employer for some time. However, despite this low profile, this set of performance problems was the most heavily reported problem by members of the work force. These low-profile problems are thus likely to affect each workplace in Alberta to some degree. The root cause of the absenteeism may go unnoticed for some time. For example, managers and co-workers may notice that a worker was late but may not attribute the problem to a hangover. Even if there is some suspicion of the cause of the performance problem, supervisors and/or co-workers may prefer to ignore it. It may not appear to be "worth the trouble" to deal directly with the performance problem.

The second set shows the employer has noticed and, in two of the three cases, taken action. The supervisors (and potentially, co-workers) would be aware of a worker being sent home due to impairment or a hangover. Having taken action, the supervisor has also sent a message that the problem has been noticed.

Two of the three cases in the third set show stronger reaction by the employer. Being caught stealing company or client property or suspected of sabotage are associated with these stronger reactions. Finally, the fourth set shows a clustering of serious safety-related impacts. The employer response linked to the safety problems is one of re-assignment, not dismissal.

Because of the differences in consumption across occupations and industries, we examined these incidents for such variation. We collapsed the occupations into blue-collar and other occupations, finding there was no significant difference on the occurrence of most incidents. There was a significant difference between the two groups in the incidence of being caught with drugs and taking extended leave, with blue-collar workers reporting relatively higher incidence of both.

Table 5.20
Reported Extent of Substance Use Incidents in the Workplace
(percentage of work force respondents by white-collar and blue-collar occupations)

Incident	Reported awareness of the incident[26]		
	White-collar	Blue-collar	All
A worker:			
arrived late for work (n=1,965)	10.5	13.2	11.4
missed a day of work (n=1,932)	12.6	15.3	13.5
was sent home from work due to apparent impairment (n=327)	24.4	20.7	23.1
was sent home from work due to apparent hangover (n=326)	24.7	22.8	24.1
was caught using alcohol on the job (n=1,995)	3.4	3.6	3.5
was caught using drugs on the job (n=1,994)	.8	1.9	1.2
who was on-call arrived at work apparently impaired (n=1,987)	5.0	6.9	5.6
was assigned other duties for the shift/day (n=1,994)	2.1	2.8	2.3
was reassigned for a longer period of time (n=1,991)	1.6	1.6	1.6
made a lot of mistakes due to apparent impairment (n=1,991)	5.2	5.4	5.3
worked at a slow pace due to apparent impairment (n=1,983)	9.4	10.8	9.8
was dismissed due to an apparent substance use problem (n=328)	14.8	21.4	17.0
was suspended due to an apparent substance use problem (n=322)	10.7	17.8	13.1
was injured on the job due to his/her impairment (n=1,997)	0.7	1.3	0.9
whose impairment resulted in injury to a co-worker (n=1,990)	0.4	0.6	0.4
whose impairment resulted in injury to someone outside the organization (n=1,990)	0.2	0.4	0.3
whose impairment resulted in damage to equipment or property (n=1,993)	1.6	2.7	2.0
with apparent substance use problems was caught stealing company or client property (n=1,991)	2.2	2.4	2.2
with apparent substance use problems was suspected of sabotaging equipment (n=1,993)	1.1	1.2	1.2
had a fight or conflict with another worker apparently due to substance use (n=1,989)	5.1	6.8	5.6
took extended leave due to a substance use problem (n=320)	9.1	16.8	11.6

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[26] shading indicates significant difference p< .05.

How concerned are employers and unions about the effects of substance use in the workplace?

The employer and union surveys asked respondents to indicate their level of concern about specific potential effects of substance use in the workplace. These concerns were determined in order to compare them to the actual impacts of substance use that are occurring, and to see if employers' and unions' concerns reflect what is actually occurring on the work site.

Table 5.21 illustrates the employers' concerns. Employers express the most concern about their organizations' reputations, their organizations' public images, and employee safety.

Table 5.21
Employer Concerns about Effects of Substance Use
(percentage of employers)
n=325

Effect	Level of concern		
	Not at all concerned	**Somewhat concerned**	**Very concerned**
Absenteeism	24.9	44.2	30.9
Tardiness	24.6	48.3	27.1
Productivity	20.1	41.4	38.5
Quality of product or service	22.0	34.8	43.1
Turnover	39.9	37.9	22.2
Employee health	16.6	42.7	40.8
Employee safety	20.6	29.1	50.3
Public safety	26.6	28.8	44.6
Equipment damage	25.0	41.8	33.2
Employee theft	32.6	39.6	27.8
Employee sabotage	46.0	31.3	22.7
Organization's public image	19.0	28.8	52.2
Organization's reputation	18.8	28.0	53.2

There is no relationship between the employers' industry and the level of concern about these specific effects of substance use, with the exception that employers with substantial blue-collar work force are more concerned about employee safety impacts and equipment damage than are employers in other industries. This logically reflects the nature of the work in these industries.

As illustrated in Table 5.22, unions are most concerned about worker safety, co-worker safety, and worker health.

Table 5.22
Union Concerns about Effects of Substance Use
(percentage of unions)
n=40

Effect	Level of concern		
	Not at all concerned	**Somewhat concerned**	**Very concerned**
Quality of work life	12.8	43.6	43.6
Worker health	12.5	30.0	57.5
Worker safety	17.9	20.5	61.5
Co-worker safety	17.9	20.5	61.5
Public safety	25.6	20.5	53.8
Union image	30.8	23.1	46.2
The environment	30.8	41.0	28.2

There is no correlation between the number of members a union has in Alberta and its representative's level of concern about these effects of substance use in the workplace. There is also no significant relationship between the respondents' levels of concern about the above effects and the type of occupation or industry represented by the union.

Employers were asked to rank a list of potential costs associated with substance use in the workplace in terms of their significance to their organization. Loss of valued customers/clients due to a reduction in the quality of a product or service and lost production from absenteeism or work slowdowns due to a substance use problem are ranked among the top two costs by more than half of the respondents. Over a third of respondents also ranked wages paid to workers who are absent from work due to a substance use problem among the top two costs to their organizations.

What is the estimated cost of performance problems related to substance use?

The wide variability in the nature and extent of performance problems related to substance use in Alberta workplaces means that it is very difficult to determine an accurate estimation of the total cost to the Alberta economy. Some industrial sectors face one set of problems, others face another set. However, the approach we have taken in this survey focused on components of the cost of substance use in terms of particular types of performance problems. An advantage of this approach is that it allows for a more targeted strategy in coping with the problems.

In conjunction with the advisory group, we thus decided to focus on the most pervasive of the performance problems attributed to substance use - those associated with absenteeism. Other workplace impacts of substance use, while more dramatic, are perceived to be less frequent. The following workplace incidents have an absenteeism effect:

- arriving an hour late for work;
- missing a day of work; and
- being sent home from work.[27]

The costs associated with substance-use-induced absenteeism include the value of wages, disruption of the work team, reduced productivity, and out-of-pocket expenses. Owners and managers in the work force survey indicated that absenteeism costs were predominantly associated with the value of the wages paid to the absent worker. If we use only this measure, the costs to Alberta employers[28] are displayed in Table 5.23. In order to avoid exaggerating impacts, we estimated costs very conservatively. We used the average hourly pay rate as a measure of the cost of the lost time. This excludes costs associated with benefits or other mandatory employment expenses.

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[27] Despite the absenteeism costs, it is better to send someone home than allow the individual to continue working, especially in a safety sensitive situation.

[28] In determining the total costs, we first had to calculate the total annual level of the incidents by extrapolating from the incident level in a four-week period. People reported incident levels in their workplace. It is possible that two people may have had experience with the same incident. To avoid double counting and to ensure our estimates were conservative, we discounted the total average annual incident level by a measure of the work team size. We then calculated the incidents in the work force as a whole by weighting it in proportion to the size of that sector of the work force.

Table 5.23
Estimation of Total Cost of Incidents Attributed to Substance Use

Incident	Estimated annual incidents (per worker)	Estimated annual incidents (000)	Hours per incident	Estimate of cost per hour	Cost per incident	Estimated total cost (000)
Arrived at least an hour late for work	3.73	1,310	1	$14.50	$14.50	$18,995
Missed a day of work	4.65	1,633	7	$14.50	$101.50	$165,750
Sent home from work drunk or high	2.80	983	7	$14.50	$101.50	$99,775
Sent home from work hung over	3.15	1,106	7	$14.50	$101.50	$112,259
TOTAL						$396,778

What are the implications for managers and unions?

The most pervasive impacts of substance use in the workplace are relatively low-profile problems. It is relatively easy for these problems to be overlooked. Even when the problem is noticed, managers or supervisors may not deal with it directly. The relatively low cost of the individual incident may mean that the supervisor considers it is not worth the trouble to confront the worker. Employers, unions and workers consulted in the early stages of this research emphasized that directly addressing performance gaps was the best way to approach substance use problems in the workplace. The next section looks more closely at the responses of employers and co-workers to an apparent substance use problem.

Accidents or injuries resulting from substance use are reported very infrequently. It must be remembered that the tolerance for workplace injury or for injuring a third party is very low. Employers, unions and the workers themselves devote considerable attention to reducing workplace safety risks. Thus, although the employer and union representative respondents report few accidents related to substance use, they indicate that their workplaces can potentially be dangerous for workers under the influence of a substance. The downside risk is so severe that action on this front is required. However, it is important to maintain a balance in communicating risks associated with substance use. While workplace safety is very important to all stakeholders, few see alcohol or drugs as a major threat to workplace safety. Even when workers recognize the risks associated with poor job performance, the recognition of risk did not translate into reduced consumption.

Apart from a referral from a supervisor due to a performance problem, workers may seek help in dealing with substance use problems if they attribute personal problems to alcohol or drug use. Workers' reporting of personal problems coincides with patterns of consumption. This suggests that EAPs/MAPs may be able to reach people with substance use problems by offering to help with other problems, such as problems with family or friends.

Section 6
Workplace Reaction and Responses to Substance Use

This section of the report answers the following questions:

How big is the substance use problem considered to be?

How does concern over substance use compare with other concerns?

Do workers know someone they work with who has an alcohol or drug problem?

How do people react to co-workers with a substance use problem?

What is the initial employer reaction to the recognition of an employee's substance use problem?

How do employers respond to an employee with an ongoing substance use problem?

Where do people in the work force, employers and unions look for help with substance use problems?

What are the typical workplace policies on substance use?

Is further action needed and what types of action are preferred?

6. WORKPLACE REACTION AND RESPONSES TO SUBSTANCE USE

Employers, unions and co-workers may deal with substance use in the workplace in a number of ways. They may not think they have a problem. They may think the problem is relatively unimportant. Faced with a worker with performance problems related to substance use, employers may simply ignore the problem; they may refer the employee for counselling; or they may discipline or even dismiss the employee. Employers and unions may offer assistance programs to workers with substance use or other problems. Co-workers may refer a worker with a substance use problem to these assistance programs. They may also ignore the problem or deal with it directly, offering advice based on their own experience. How workers, employers and unions currently handle workplace impacts of substance use provides insight into directions for the future.

How big is the substance use problem considered to be?

Despite widespread press attention to illicit drug use, most respondents in all three surveys expressed the perception that alcohol use was a more serious problem than drug use. This supports the expert opinion that alcohol use is a more serious workplace problem than drug use. It also reflects the facts of our surveys on prevalence of substance use: alcohol is much more widely used and more frequently perceived to be a factor in workplace problems.

Work Force Perceptions

The majority of respondents did not consider either drug use or alcohol use to be a serious workplace problem **in their own workplaces**. About 18% considered alcohol use to be a moderate or extremely serious problem in their own workplaces, while just over 10% considered drug use to be a moderately or extremely serious problem. Although people were more likely to consider alcohol than drug use a serious problem, those individuals who perceive the alcohol problem as extremely serious tended to be the same people who perceive the drug problem as extremely serious.

People in different occupations tend to have only slightly different views on the extent to which drugs and alcohol are a problem. Thus, for example, managers were just as likely as sales staff to consider that substance use is a moderately or extremely serious problem. However, people in different industries perceive the extent of the substance use problem differently. Telecommunications, social services, upstream oil and gas, and transportation had a greater tendency than other sectors to see the alcohol use issue as extremely serious. If we consider high consumption to be an indicator of potential substance use problems, then the people in the transportation industry seem to be more realistic in their self-assessment than are workers in the construction industry. On the other hand, the alcohol consumption patterns suggest that social services would have relatively fewer potential problems, but that industry expressed relatively more concern about alcohol use. It is possible that awareness of the substance use issue has been heightened in the transportation sector by recent studies focusing on that sector. Similarly, social services workers may have a stronger inherent awareness of the issue, and thus perceive it as more serious.

People working for larger employers were somewhat more likely to consider the problems as moderately or extremely serious. Tables 6.1 to 6.4 show a breakdown of the perceived extent of the alcohol and drug use problems across industries and employer size. In most cases, the workers in an industry were more likely to consider alcohol to be a more serious problem than drug use. This was not the case in social services and transportation. In both these industries, a greater proportion of workers regarded drug use as an extremely serious problem than regarded alcohol use as extremely serious.

Table 6.1
Perceived Seriousness of Alcohol Problem by Industry
(percentage of respondents)
n=1,933

Industry	Extremely serious	Moderately serious	Not very serious
Agriculture	6.7	4.3	89.0
Forestry/mining	5.1	19.4	75.5
Construction	6.5	11.1	82.4
Telecommunications	12.8	11.9	75.4
Wholesale/retail	5.9	11.2	82.8
Education	0.0	5.6	94.4
Social services	11.0	9.2	79.8
Public administration	9.8	11.3	78.8
Upstream oil and gas	12.3	10.4	77.3
Manufacturing	3.4	11.2	85.4
Transportation	14.4	9.2	76.4
Utilities	7.8	19.2	73.0
Finance	5.0	9.8	85.3
Health care	6.3	8.9	84.8
Other services	10.9	13.2	75.9
Other	6.6	11.3	82.1

Table 6.2
Perceived Seriousness of Alcohol Problem by Employer Size
(percentage of respondents)
n=1,970

Size	Extremely serious	Moderately serious	Not very serious
1 to 4 employees	5.9	6.1	88.0
5 to 9 employees	5.6	6.0	88.5
10 to 49 employees	7.2	9.3	83.5
50 to 99 employees	8.4	8.4	83.2
100 or more employees	7.8	13.2	79.0

Table 6.3
Perceived Seriousness of Drug Problem by Industry
(percentage of respondents)
n=1,950

Industry	Extremely serious	Moderately serious	Not very serious
Agriculture	5.4	2.1	92.5
Forestry/mining	1.9	13.1	85.0
Construction	3.4	8.1	88.6
Telecommunications	6.4	4.4	89.3
Wholesale/retail	5.3	4.6	90.1
Education	0.0	0.9	99.1
Social services	13.6	6.8	79.6
Public administration	6.5	3.5	90.0
Upstream oil and gas	9.7	6.9	83.4
Manufacturing	3.0	5.3	91.7
Transportation	16.8	6.0	77.2
Utilities	2.9	11.3	85.7
Finance	3.4	2.4	94.2
Health care	5.3	3.3	91.4
Other services	10.4	5.4	84.1
Other	3.8	5.4	90.8

Table 6.4
Perceived Seriousness of Drug Problem by Employer Size
(percentage of respondents)
n=1,928

Size	Extremely serious	Moderately serious	Not very serious
1 to 4 employees	4.7	1.7	93.6
5 to 9 employees	5.1	1.5	93.3
10 to 49 employees	5.9	5.4	88.7
50 to 99 employees	7.2	4.6	88.2
100 or more employees	5.7	6.2	88.1

The sense that some workers are unrealistic in their assessment of the seriousness of the substance use problems in their workplaces is reinforced when we examine how different types of drinkers assess the seriousness of the alcohol problems in their own workplace. People who drink infrequently were most likely to consider the situation extremely serious. Over 85% of heavy drinkers considered the issue to be not very serious. Table 6.5 shows this pattern.

Table 6.5
Perceived Seriousness of Alcohol Problem by Types of Drinkers
(percentage of respondents)
n=1,571

Drinker Type[29]	Extremely Serious	Moderately Serious	Not Very Serious
Infrequent	12.3	9.8	77.9
Occasional	5.1	10.8	84.2
Regular, Light	6.8	9.8	83.4
Regular, Moderate to Heavy	6.2	20.8	73.0
Very Heavy	7.5	7.0	85.5

Employer and Union Views

Employers and unions have a somewhat broader perspective on workplace issues than do many individual employees. Typically, problems in the workplace come to their attention. Focus groups and exploratory interviews indicated that both employers and unions acknowledged that the workplace was affected by substance use and its consequences. Publications on substance use reinforce this perspective. For example, the Alliance for a Drug Free Canada states that "substance abuse (alcohol and drugs) is costing billions of dollars to the Canadian economy in terms of absenteeism, accidents, turnover, waste and low productivity."[30]

Employer and union representatives seem to consider the substance use problems to be more serious than do the average members of the work force. However, employers and unions agree with the work force view that alcohol use is a greater problem than drug use. In addition, both groups reported that the substance use problems are **more severe in their industries as a whole** than among their own employees or members. This sense that substance use is a problem "for others" was reinforced when employers and unions were asked to compare the substance use issue to other issues they face. As will be discussed in the next section, they generally did not consider substance use to be a priority.

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[29] Please refer to Section 3 for a definition of drinker types.

[30] Alliance for a Drug Free Canada. Illicit Drugs and Alcohol: Facts and Information. undated.

Union representatives were more likely to report that substance use is a serious problem than were employer representatives. Table 6.6 compares employer and union views on the seriousness of both the alcohol and drug use problem.

Table 6.6
Employer and Union Views on the Seriousness of the Alcohol and Drug Use Problem
(percentage of respondents)

Extent of problem	Employer views n=325				Union views n=40			
	Own organization		Own industry		Own members		Alberta workers	
	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs	Alcohol	Drugs
Extremely serious	3.4	4.3	10.2	7.7	5.0	2.5	15.4	7.7
Moderately serious	17.9	12.0	32.1	21.3	40.0	27.5	59.0	59.0
Not serious	72.2	64.5	37.0	37.7	47.5	55.0	10.3	12.8
Do not know	6.5	19.1	20.7	33.3	7.5	15.0	15.4	20.5

Unlike the distinctive industry pattern in the work force perceptions of the problem, the employer survey did not reveal any relationship between industry and the employers' perceptions about the seriousness of alcohol or drug problems. However, clustering industries into larger categories based on the predominance of blue-collar jobs within the industry, revealed that employers in industries with heavy blue-collar employment tend to be more concerned than those in other industries. The unions' perceived seriousness of substance use problems differed in terms of the major occupations and industries represented in their memberships. Respondents from unions representing blue-collar workers perceive both alcohol and drug use to be a more serious problem for their members than do respondents from unions representing other occupations. Thus, respondents from unions whose members work in industries such as construction and transportation perceive both alcohol and drug use to be a more serious problem for their members than do respondents from unions representing service workers.[31]

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[31] Unionization is very low in the primary sector.

In contrast to the pattern found in the work force survey, the employer survey found no significant relationship between the number of people an organization employs and the representative's expressed level of concern about either alcohol use or drug use. Similarly, the union survey found no relationship between the number of members a union has in Alberta and the level of concern its representative has about alcohol or drug use.

How does concern over substance use compare with other concerns?

In an effort to discern the relative importance of substance use compared to other workplace concerns, we asked employer and union representatives to rank a number of current workplace issues in terms of their importance. The results are shown in Table 6.7.[32]

Table 6.7
Employer Ranking of Workplace Issues
(percentage of respondents)
n=325

Issue	Rank		
	#1	#2	#3
Drug use among the work force	1.2	0.6	3.1
Alcohol use among the work force	2.2	0.9	5.9
Reorganizing or redesigning jobs to improve product or service quality	18.1	16.2	13.4
Work force training and development	26.8	26.8	15.3
Rightsizing or downsizing the organization	10.3	8.4	9.0
Linking pay to employees' performance	7.5	10.0	12.1
Work force literacy and numeracy	2.5	2.2	4.7
Recruitment of skilled workers	22.1	15.3	14.3
Ensuring workplace health and safety	17.8	17.1	17.4
Implementing flexible work schedules	2.5	4.4	9.3
Other	1.6	0.9	1.6

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[32] It should be noted that the list of issues provided to the union representatives differed slightly from that provided to the employers.

Employers indicated that work force training and development was the predominant issue, with just under a third of respondents rating it first and a similar portion ranking it second. Other issues that ranked as very important to the employers are recruitment of skilled workers, reorganizing or redesigning jobs to improve product or service quality, and ensuring workplace health and safety. Alcohol use among the work force and drug use among the work force ranked high by only a handful of respondents.

The majority of union representatives indicated that job security was the issue most important to their members. Workplace health and safety ranked as the second most important issue to members, and general job training ranked as the third most important issue to members. Unions did not rank controlling alcohol use and drug use in the workplace as important to members. Table 6.8 summarizes the union views.

Table 6.8
Union Ranking of Workplace Issues
(percentage of respondents)
n=40

Issue	Rank		
	#1	#2	#3
Job security	69.2	15.4	5.1
Need for counselling services	0.0	2.6	7.7
General job training	7.7	7.7	28.2
Technological change	2.6	12.8	17.9
Work schedules	0.0	30.8	10.3
A smoke-free workplace	0.0	5.1	0.0
Controlling drug use in the workplace	0.0	0.0	7.7
Controlling alcohol use in the workplace	0.0	0.0	5.1
Workplace health and safety	12.8	23.1	20.5
Other	10.3	5.1	0.0

In summary, although both employers and unions consider substance use to be a serious workplace problem, they do not put it as high on their agendas as they do other issues. Understanding this sense of priority is important in designing programs to deal with substance use in the workplace. In order to get the topic of substance use on the employers' agendas, it may be more useful to frame the issues in the context of productivity and competitiveness. Similarly, in communicating with unions, the issues could be framed in terms of worker health. There was no relationship between perceived seriousness of the issues and the ranking. Even those unions and employers who considered the issue as extremely serious tended to rank it below other concerns.

Do workers know someone they work with who has an alcohol or drug problem?

Approximately a quarter of the work force say that they know someone they work with who has an alcohol problem. Only 8% say that they know someone they work with who has a drug problem.

Knowing someone with an alcohol or drug problem varies only slightly across occupations, as seen in Table 6.9. Respondents in construction, transportation, and materials handling occupations were more likely to report that someone they worked with had an alcohol problem. Readers will recall that the previous sections identified these occupations as ones with relatively high, self-reported, alcohol consumption, and also with relatively high, self-reported, risks. Workers in clerical occupations are least likely to report knowing a co-worker with a drug problem.

Table 6.9
Knowing a Co-worker with an Alcohol Problem or with a Drug Problem by Occupation
(percentage of work force in occupation)

Occupation	Know a co-worker with	
	Alcohol problem n=1,990	Drug problem n=1,985
Manager/professional	24.7	6.3
Clerical	17.6	4.1
Sales	22.6	7.9
Service	29.4	13.8
Primary	17.3	5.7
Processing	26.8	8.6
Construction	30.2	13.3
Transportation	29.7	11.6
Materials handling	31.3	9.2
All Occupations	24.3	8.0

Table 6.10 illustrates the likelihood of knowing a co-worker with a substance problem by industry. In terms of industry, forestry, telecommunications, manufacturing, and utilities workers were more likely to report knowing someone with an alcohol problem. Workers in the agriculture sector are least likely to report knowing a co-worker with an alcohol problem. Workers in agriculture are also least likely to report knowing a co-worker with a drug problem.

Table 6.10
Knowing a Co-worker with an Alcohol Problem or with a Drug Problem by Industry
(percentage of work force in industry)

Industry	Know a co-worker with	
	Alcohol problem n=1,985	Drug problem n=1,979
Agriculture	14.0	3.1
Forestry/mining	33.6	17.2
Construction	27.0	12.7
Telecommunications	36.7	6.3
Wholesale/retail	21.4	6.6
Education	17.3	5.6
Social services	23.5	n/a
Public administration	29.4	7.0
Upstream oil and gas	25.7	8.2
Manufacturing	31.4	8.8
Transportation	26.8	10.1
Utilities	35.4	13.5
Finance	20.8	4.9
Health care	19.8	6.3
Other services	24.2	7.6
Other	24.0	9.0
All Industries	24.2	8.0

How do people react to co-workers with a substance use problem?

Our background research suggested that the reactions of co-workers to a colleague with a substance use problem could affect whether or not the individual sought or received help. Some focus group participants noted that co-workers generally do not refer people to EAPs.

As indicated in Table 6.11, people who reported knowing a co-worker with an alcohol or a drug problem tended to consider the problems of substance use in the workplace to be more serious.

Table 6.11
Awareness of a Co-Worker with a Substance Use Problem and Perceived Seriousness of Substance Use in the Workplace
(percentage of respondents)
n=1,939

	Know someone with			
	Alcohol problem		**Drug problem**	
Substance use in workplace is	**yes**	**no**	**yes**	**no**
Extremely serious	49.5	50.5	19.4	80.6
Moderately serious	72.0	28.0	48.2	51.8
Not very serious	16.1	83.9	5.0	95.0

It is generally accepted that co-workers and/or family members of a person with a substance problem may, in an attempt to assist the individual, actually prolong his or her problem. This contribution to the addiction is referred to as "enabling". We posed the situation of discovering that someone "you work closely with" has a substance problem, and asked people how they would react. About one-third of the respondents would give the person advice directly on dealing with his or her drug or alcohol problem. Just under a third would suggest the person get professional help. A small minority would avoid working with the person, or would help the person by doing some of his/her work. About 12% would do nothing. There was no relationship between the employer size and the reaction to a person with a substance use problem. Compared with those who do not know anyone in their workplace with a substance problem, those who reported that they currently work with someone with an alcohol problem were **more** likely to indicate that they would not interfere or would do nothing. They were less likely to give the person direct advice or suggest the person get professional help.

There were distinct occupational variations in the way people said they would react to a co-worker with a substance use problem. This pattern is shown in Table 6.12. Overall, blue-collar workers are more likely than white-collar workers to help the individual with his/her work, offer direct advice or protect the co-worker from discovery. White-collar workers were more likely than their blue-collar counterparts to refer the co-worker for professional help, to avoid working with the individual, or to report the co-worker to a supervisor. In focus groups conducted as background research, we discussed the issue of reporting a co-worker's drinking. In many workplaces there is a strong bias against such reporting. It would be considered "snitching on a friend." We learned that at least one major employer has a formal policy requiring that workers report on a co-worker's drinking on the job. The individuals we spoke with explained that the employer has had to communicate this policy very carefully to overcome the underlying culture of protecting one's peers.

Table 6.12
Reaction to a Co-worker with a Substance Use Problem by Occupation
(percentage of work force in same occupation)
n=1,691

Occupation	Avoid	Help	Advise	Refer	Not Interfere	Other
Managerial/Professional	2.3	2.0	33.6	41.0	5.1	16.0
Clerical	1.3	2.1	33.3	32.9	15.8	14.6
Sales	0.6	2.5	38.2	33.8	10.2	14.6
Service	2.2	3.5	39.8	24.3	19.9	10.2
Primary	6.3	2.3	28.5	30.5	9.8	22.7
Processing	8.3	3.0	31.8	24.2	12.1	20.5
Construction	8.9	0.6	35.2	24.0	16.2	15.1
Transportation	6.9	2.0	33.3	28.4	18.6	10.8
Materials	1.9	3.7	38.0	25.9	17.6	13.0
Other	4.3	0.0	34.8	26.1	0.0	34.8

Access to an EAP/MAP is not a factor that explains these behaviours. People with access to an EAP/MAP were just as likely to offer direct advice or protect the co-worker.

What is the initial employer reaction to the recognition of an employee's substance use problem?

How the employer reacts to the recognition that an employee has a substance use problem plays a major role in the nature and scope of the impact of substance use on the workplace. Our background research indicated that employers who did not deal directly with the problems were often saddled with longer term implications. Indeed, although we found that younger workers were more likely to be heavy users, long-term employees were certainly not immune to substance use problems. We asked employers to indicate their organization's usual response on first realizing that an employee has a substance use problem. The results are displayed in Table 6.13.

Table 6.13
Employer Reactions to Recognizing an Employee's Substance Use Problem
(percentage of employers)
n=325

Reaction	Percentage of employers having reaction
Progressive discipline	64.2
Refer for professional counselling/medical treatment	60.4
Counselling by supervisor	45.9
Terminate as quickly as possible	10.8
Reassign to a less sensitive area, but otherwise wait and see	5.1
Do nothing	2.2

There was no relationship between the referral for counselling and progressive discipline. While some employers used both, we did not find a pattern in their use.

Very few employers indicated they would do nothing. The most common employer reaction is progressive discipline: warnings, suspension and termination. The next most frequent response is to refer for professional counselling and/or medical treatment, followed by supervisory counselling. A small minority of respondents reported that they would terminate the employee as quickly as possible; an even smaller proportion indicated that they would reassign the employee to a less sensitive area, but otherwise wait and see. We asked managers and owner-managers in the work force survey a similar question, with comparable results. There was no relationship between employer size and the response to substance use problems in the workplace. However, those managers and owner-managers who tended to see the overall substance use issue as an extremely serious problem were more likely to report using a disciplinary approach to dealing with such problems or simply "not interfere." In contrast, those who considered the overall substance use situation as not a very serious problem tended to refer people for professional counselling.

With disciplinary actions common as a reaction to the discovery of substance use problems, we asked both employers and unions about the appropriateness of certain disciplinary actions in specified circumstances. Table 6.14 compares union and employer responses. In virtually all cases, the majority considered a warning to be the most appropriate response. This indicates both employers and unions have an interest in retaining workers, and in having them deal with their substance use problems. However, it should also be noted that both employers and unions report more severe consequences for incidents involving drugs than for the same types of incidents involving alcohol.

Table 6.14
Employer and Union Disciplinary Actions Considered Appropriate for Substance Use Incidents
(percentage of respondents to each survey)
employers: n=325 unions: n=40

Incident		No action	Warning	Suspension of <1 day	Suspension of 1 day to 1 week	Suspension of >1 week	Dismissal
Employee arrived impaired	Employers	0.0	20.0	56.9	12.3	0.0	10.8
	Unions	10.5	50.0	28.9	5.3	0.0	5.3
Employee arrived hung over	Employers	13.8	64.6	16.9	3.1	0.0	1.5
	Unions	47.4	52.6	0.0	0.0	0.0	0.0
Employee involved in an accident involving alcohol resulting in no harm to anyone	Employers	4.8	44.4	7.9	15.9	6.3	20.6
	Unions	15.8	39.5	10.5	15.8	7.9	7.9
Employee involved in a near miss involving alcohol	Employers	6.5	54.8	11.3	14.5	3.2	9.7
	Unions	21.1	42.1	10.5	15.8	5.3	2.6
Employee involved in accident involving alcohol and resulting in injury	Employers	1.6	6.3	7.8	21.9	6.3	56.3
	Unions	13.2	18.4	7.9	10.5	13.2	34.2
Employee involved in an accident involving drugs resulting in no harm to anyone	Employers	1.6	33.3	15.9	12.7	4.8	31.7
	Unions	15.8	31.6	7.9	15.8	5.3	21.1
Employee involved in a near miss involving drugs	Employers	3.2	52.4	11.1	11.1	3.2	19.0
	Unions	23.7	36.8	10.5	10.5	5.3	10.5
Employee involved in an accident involving drugs and resulting in injury	Employers	1.6	4.8	6.3	19.0	6.3	61.9
	Unions	10.5	18.4	5.3	10.5	13.2	39.5

Generally, response patterns appear to be consistent across employers and unions. There is no relationship between the disciplinary action taken by an organization and industry, size of employer, or degree of unionization. Similarly, unions covering various main occupations and industries and of various sizes expressed similar views.

Focus group participants pointed out that employers who deal with an impaired worker by sending him/her home for the day may be putting the worker and the public at risk if they let the worker drive home. Employers were asked whether their companies would escort an employee home or allow the employee to go home on his or her own if he or she were sent home from work due to impairment. Seventy-nine percent of the respondents indicate that their company would escort the individual home.

How do employers respond to an employee with an ongoing substance use problem?

We asked owner-managers in the work force survey about their response to an employee with an ongoing substance use problem. Over 50% reported that they would refer the individual for professional counselling, while one-third indicated they would use a progressive disciplinary approach. Only a very small minority reported dismissal as a viable option in itself. Owner-managers with fewer employees were somewhat more likely to choose a progressive discipline approach. They were somewhat less inclined to refer workers with a problem for professional counselling. The perceived cost of a counselling (EAP) option may be a factor. Smaller employers may consider a disciplinary approach to be more economical. However, it can be argued that the disciplinary approach is only cost-effective when it works. If it results in dismissal, then recruitment and training costs for a new employee would have to be considered.

Table 6.15 shows a breakdown of responses by industry. Owner-managers' response to a worker with a substance use problem was not related to their perceptions of the overall seriousness of the substance use problem in the workplace.

Table 6.15
Managers' Responses to Substance Use by Industry
n=300

Industry	Discipline	Drug test	Professional counselling	Supervisory counselling	Reassign	Not interfere
Agriculture	30.0	0.0	50.9	14.3	1.2	3.6
Forestry/mining	59.1	0.0	40.9	0.0	0.0	0.0
Construction	37.8	2.9	40.9	2.9	9.6	5.8
Telecommunications	56.6	0.0	14.8	15.0	0.0	13.6
Wholesale/retail	27.5	0.0	56.9	8.0	0.0	7.6
Education	0.0	0.0	71.7	0.0	28.3	0.0
Social services	35.4	0.0	64.6	0.0	0.0	0.0
Public admin.	0.0	0.0	100.0	0.0	0.0	0.0
Upstream oil and gas	53.4	0.0	32.2	14.4	0.0	0.0
Manufacturing	28.9	0.0	46.7	19.8	0.0	4.6
Transportation	44.1	0.0	24.9	24.4	0.0	6.6
Utilities	14.6	0.0	35.0	0.0	0.0	50.4
Finance	29.3	0.0	50.7	19.9	0.0	0.0
Health care	50.4	0.0	25.1	0.0	0.0	0.0
Other services	46.5	0.0	45.4	2.6	0.0	5.5
Other	18.3	0.0	65.4	7.8	3.4	5.1
TOTAL	32.4	0.2	50.1	9.6	2.3	4.8

The survey of employers asked what would most likely occur if a worker required treatment for a substance problem. Almost a third of respondents indicate that the employee would be granted an offer of sick leave with full pay. Twenty-six percent indicate that the employee would be offered short-term leave without pay, and 19% indicate that the employee would be offered sick leave with partial pay (typically between 50% and 70% of usual take-home pay). Only 6% of respondents indicate that the employee would be suspended, and only slightly more indicate that the employee would be dismissed. Table 6.16 shows this pattern.

Table 6.16
Employer Responses When Workers Require Treatment for a Substance Problem
(percentage of respondents using response)
n=325

Responses	Percentage of respondents
Offer of sick leave (with full pay)	30.8
Offer of short-term leave without pay	26.1
Offer of sick leave (with partial pay)	18.9
Do not know	11.6
Dismissal of the employee	6.6
Suspension of the employee	6.0

Union representatives were also asked to indicate what type of leave would most likely be offered if a member of their union required treatment for a substance problem. Fifty-six percent of the respondents indicate that the member would most likely be offered sick leave with full pay; 15% indicate that the member would be offered short-term leave without pay; and 15% indicate that the member would be offered sick leave with partial pay of at least two-thirds of normal pay. Almost all of the respondents indicate that a member taking leave to undergo treatment would retain his or her union membership and the associated benefits.

Employer respondents were asked whether their organizations assist employees who are returning to the work force following treatment for a substance use problem. Thirty-seven percent indicate that they do provide such assistance; 23% indicate that they do not provide assistance; and 12% indicate that they do not know if their organizations provide assistance. Details of the type of assistance are shown in Table 6.17.

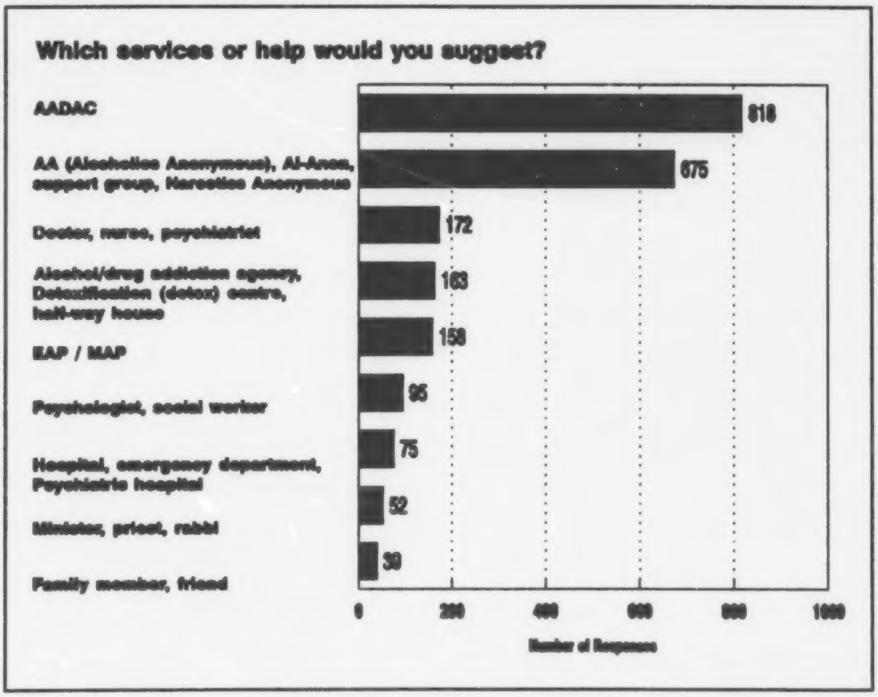
Table 6.17
Employer Assistance to Employees Following Treatment for a Substance Use Problem
(percentage of respondents offering such assistance)
n=325

Approach to assistance	Percentage of respondents
Time off for ongoing treatment	75.4
Follow-up or after-care program in the workplace	54.4
Coaching/training of co-workers and supervisors	42.1
Reassignment to other work areas	29.8
Other	0.9

Where do people in the work force, employers, and unions look for help with substance use problems?

Background research indicated that the work force in Alberta had a variety of potential sources of help in dealing with substance use problems. The three surveys asked respondents to indicate where they would look for help for a substance use problem, whether their own or that of a co-worker, subordinate or member. Overall, about 86% of work force respondents indicated they would know where to go for help if they themselves or a co-worker had a substance use problem. This stands in contrast to the earlier point that about a third of the respondents said they would offer advice directly. Those who considered alcohol use as a not very serious problem were somewhat less likely than their peers to know where to go for help. It is possible that these individuals have simply not paid much attention to information on sources of help. The knowledge of where to go for help was reported as highest among those in the education and utilities sectors, with 95% reporting knowing where to go for help. By comparison, 77% of those in the construction sector and 79% of mining and forestry sectors reported they knew where to go for help. Occupationally, those in managerial and professional positions were much more likely to report they know where to get help than were other people. Those who reported that they currently know someone with an alcohol use problem were more likely to indicate they knew where to go for help. However, the same was not true for those who reported they knew someone with a drug problem. However, readers will recall that people who reported actually knowing someone with a substance use problem were also more likely than other people to indicate they would not interfere. Simply knowing where to refer someone is not, in itself, sufficient to encourage such referrals. We found no relationship between consumption variables and knowing where to go for help. Heavy drinkers were just as likely as light drinkers to report knowing where to go for help.

Those who indicated they knew where to go for help were asked what specific sources of help or services they would suggest. Respondents could give multiple answers to this question. The following graph shows the overall responses, while Table 6.18 shows an industry breakdown of the reported knowledge of where to go for help, and the particular source of help suggested. It should be noted that while respondents were not prompted when asked this question, they had been informed at the beginning of the survey that AADAC had sponsored the research.



Responses reveal that AADAC is very well known as a point of referral, with a third more people identifying AADAC than the next largest referral point, Alcoholics Anonymous (AA) programs. Both AADAC and general AA programs were much more widely identified than were EAPs.

Table 6.18
Perceived Sources of Help by Industry
n=1,996

Industry[33]	Know Source of Help	Family Friend	AA	EAP /MAP	Social Worker, Psychologist	Minister, Priest, Rabbi	Doctor, Nurse	Hospital	AADAC	Other Agency	Other
Agriculture	81.9	11.9	7.9	------	4.3	17.6	9.1	3.7	6.2	5.8	3.5
Forestry/mining	78.6	------	1.0	5.0	1.2	2.1	2.3	------	1.0	0.4	1.3
Construction	76.9	8.0	5.6	1.7	2.6	2.4	6.4	2.3	5.8	5.3	5.9
Telecommunications	81.2	5.2	1.4	2.6	3.2	1.2	2.4	------	2.8	5.6	2.8
Wholesale/retail	86.8	10.2	13.6	5.0	6.3	15.7	9.6	12.4	10.9	10.5	11.4
Education	95.3	10.6	6.4	9.1	17.4	5.9	6.1	1.8	6.4	3.8	11.7
Social services	88.8	1.6	3.1	------	2.8	------	0.6	3.6	2.5	5.7	------
Public administration	87.6	------	5.7	15.5	11.8	4.0	3.7	5.2	7.0	7.5	8.7
Upstream oil & gas	88.7	15.4	6.0	15.8	3.4	4.3	7.1	6.3	5.6	2.7	7.1
Manufacturing	80.1	------	5.3	6.8	5.6	2.1	5.8	6.3	5.4	7.4	5.6
Transportation	86.6	1.4	4.0	8.8	0.6	2.1	3.7	0.7	3.9	3.4	3.3
Utilities	95.3	3.1	3.4	5.6	0.4	2.0	1.2	3.7	2.3	4.9	5.1
Finance	84.0	------	8.1	3.9	6.5	10.2	6.1	6.8	6.4	5.4	6.7
Health care	90.6	7.8	8.1	7.9	17.2	13.9	16.0	32.6	11.1	8.6	8.2
Other services	85.9	5.2	7.0	3.3	------	4.0	6.3	6.0	6.8	8.6	5.0
Other	83.8	19.5	13.4	9.1	14.9	12.7	13.6	8.6	15.7	14.4	13.8

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[33] Table should be read vertically; after the first column of data, columns total to 100%.

About 23% of work force respondents reported that they had received information on the effects of alcohol or drug use at work in the last 12 months. Reading materials, brochures and pamphlets were the most commonly reported information media, with 70% of those reporting the receipt of information saying that they received it in such a format. Presentations by a medical officer or drug education counsellor were reported by about 12% of those receiving information. Other formats/media accounted for less than 8% each. Unionized workers were more likely than their non-union counterparts to report having received such information. However, the format of the information was fairly similar for both unionized and non-union workers.

What are the typical workplace policies on substance use?

Work force respondents were asked about the existence of formal policies on substance use in their organizations. Just under one-third reported that their employers had written policies on alcohol or drug use in the workplace. There was a strong relationship between the existence of substance use policies and smoking policies, with almost 70% of those reporting substance use policies also reporting that their organization had a formal smoking policy. Table 6.19 shows the pattern of both written policies on substance use and smoking policies by industry. The reported existence of written policies was positively correlated with the respondents' perceived seriousness of the substance use problem. Those who thought the substance use problem more serious tended to have policies regarding substance use.

Table 6.19
Industry Breakdown of Smoking Policy and Written Substance Use Policy
(percent of respondents indicating that policy exists)

Industry	Smoking Policy n=1,490	Written Substance Use Policy n=1,381
Agriculture	19.3	5.8
Forestry/mining	36.7	34.4
Construction	20.1	24.1
Telecommunications	63.4	43.2
Wholesale/retail	52.7	36.9
Education	87.6	49.8
Social services	64.9	30.6
Public administration	77.5	40.9
Upstream oil and gas	48.6	54.7
Manufacturing	43.1	30.5
Transportation	39.5	44.4
Utilities	53.2	47.5
Finance	59.1	21.8
Health care	84.9	56.8
Other services	39.7	23.2
Other	50.2	28.1

Workplace substance use policies could include a variety of different components, ranging from employee or supervisory education, to counselling, to drug testing. We asked those respondents who had reported their employers had written policies on substance use for details on the coverage of those policies. Table 6.20 on the following page shows the prevalence of various workplace policies on substance use by industry.

Table 6.28
Components of workplace policies by industry

	Training for supervisors in recognizing substance use problems	Training for supervisors in helping employees recognize their substance use problem	Training for all employees related to preventing substance use problems	Provision of sick leave for employees undergoing treatment	Provision to reassign employees facing substance use problems	Security procedures to prevent the presence of drugs in the workplace	Progressive discipline to deal with substance use problems in the workplace	Information sessions for all employees on the organization's substance use policies	Promotion of workplace wellness	Drug testing	Prohibition of substance use across the organization
Agriculture	13.0	13.0	7.0	19.6	26.6	27.7	46.6	17.3	35.5	.0	47.1
Forestry/mining	44.8	27.0	29.3	29.0	27.0	66.3	74.6	46.0	72.4	5.6	47.9
Construction	19.0	8.2	24.6	29.7	27.0	21.7	51.6	33.5	38.3	6.6	60.7
Telecommunications	55.6	37.6	44.6	56.3	58.1	12.9	25.9	44.6	44.1	25.9	55.1
Wholesale/retail	20.7	8.5	8.2	39.2	23.6	31.1	48.0	24.3	42.5	1.4	62.4
Education	8.2	12.1	8.7	35.4	16.3	5.0	32.3	18.4	21.7	.0	54.8
Social services	43.1	21.7	50.4	35.5	28.4	50.2	28.4	49.8	35.5	.0	45.8
Public administration	23.2	15.4	11.6	32.5	23.2	11.6	27.3	15.4	23.3	3.7	56.3
Upstream oil and gas	19.9	20.9	21.8	21.9	25.9	21.5	35.1	17.2	37.4	15.0	52.9
Manufacturing/ processing	36.0	22.3	22.1	37.3	33.1	26.2	54.5	26.9	36.8	22.1	61.2
Transportation	7.2	4.9	4.7	8.1	5.9	7.7	16.2	14.1	35.3	7.1	66.3
Utilities	33.8	38.4	35.3	52.1	39.8	23.2	72.2	22.7	68.3	7.5	62.1
Finance	15.3	11.7	15.3	23.4	4.1	15.7	15.7	14.8	18.7	.0	40.5
Health care	41.4	26.3	21.8	38.9	24.5	25.8	42.8	38.8	53.3	1.7	66.8
Other services	16.1	8.3	2.9	8.5	5.6	16.6	15.8	8.6	16.5	.0	32.9
Other	24.3	18.5	14.8	27.6	26.5	26.1	45.7	19.3	38.9	5.9	55.4
TOTAL	24.3	16.8	16.9	30.2	23.2	22.7	38.7	23.6	37.2	5.7	55.7

The sectoral pattern in the existence of policies suggests that Alberta employers may benefit from a sector-specific, case-oriented approach to information on workplace substance use policies. Alberta Occupational Health and Safety has used a sector-specific approach in Occupational Health and Safety programs. The use of a similar approach in the substance use issue should be considered. The construction sector would be a priority for such action. While there are also indicators of substance use concerns in the transportation sector, that industry has already taken action. Forestry, mining, upstream oil and gas, utilities, and telecommunications would also benefit from a sectoral approach.

The employer and union surveys also enquired about formal policies on substance use in the workplace. Forty-seven percent of employer respondents indicate that their organizations have formal policies regarding substance use in the workplace. The two most common policies are prohibition of substance use across the organization and progressive discipline to deal with substance use problems in the workplace. Prohibition is described as very useful by just over two out of five employer respondents, and progressive discipline is described as very useful by a somewhat smaller proportion. Seventy percent of employers indicate that they have a provision of sick leave for employees undergoing treatment, a policy which almost half of these employers rated as very useful. About two-thirds of employers indicate that they provide a smoke-free workplace, with just under a third of these rating that policy as very effective.

Table 6.21
Employers' Policies Regarding Substance Use in the Workplace
(percentage of respondents)
n=325

Policy	Have policy	Effect on reducing substance use: Very useful	Effect on reducing substance use: Somewhat useful	Effect on reducing substance use: Not at all useful
Prohibition of substance use across the organization	80.8	43.2	35.2	2.4
Training for supervisors in recognizing substance use problems	40.5	17.5	23.0	0.0
Training for supervisors in helping employees see their substance use problem	31.5	17.3	14.2	0.0
Training for all employees related to preventing substance use problem	22.5	9.3	12.4	0.8
Provision of sick leave for employees undergoing treatment	70.5	41.0	27.0	2.5
Provision to reassign employees facing substance use problems	20.4	6.3	12.5	1.6
Security procedures to prevent the presence of drugs in the workplace	15.0	6.3	7.9	0.8
Progressive discipline to deal with substance use problems in the workplace	78.6	39.3	38.5	0.8
Information sessions for all employees on the organization's substance use policies	33.9	16.9	16.2	0.8
Promotion of workplace wellness (or health promotion in the workplace)	56.0	26.4	28.8	0.8
Provision of a smoke-free workplace	67.3	32.0	27.9	7.4

Union representatives were also asked to identify the typical policies covered in their collective agreements or held by their members' employers. Fifty-nine percent of union representative respondents reported the existence of policies dealing with substance use in the workplace (the same percentage of employer respondents who reported having such policies). Of those union respondents reporting that policies do exist, over three-quarters indicate that the policies include provision of sick leave for employees undergoing treatment; just under two-thirds indicate that the policies include progressive discipline to deal with substance use problems in the workplace; and three-fifths indicate that the policies include provision of a smoke-free workplace and prohibition of substance use across the organization.

Table 6.22
Unions' Policies Regarding Substance Use in the Workplace
(percentage of respondents)
n=40

Policy	Have Policy
Provision of sick leave for employees undergoing treatment	77.3
Progressive discipline to deal with substance use problems in the workplace	63.6
Prohibition of substance use across the organization	59.1
Provision of a smoke-free workplace	59.1
Provision of smoking areas for lunch and coffee breaks	54.5
Information sessions for all employees on the organization's substance use policies	36.4
Promotion of workplace wellness (health promotion in the workplace)	36.4
Training for members in recognizing substance use problems	27.3
Provision to reassign employees facing substance use problems	27.3
Training for all employees related to preventing substance use problems	22.7
Security procedures to prevent the presence of drugs in the workplace	9.1

Union representatives were asked to rate a variety of employment policy options in terms of their likely effect on reducing alcohol or drug problems in the workplace. Over half of the respondents rate the following policy options as very effective: provision of sick leave for employees undergoing treatment, and member or employee assistance programs. Training for employees related to preventing substance use problems, training for supervisors in recognizing substance use problems, and promotion of workplace wellness are also rated as quite effective.

Drug Testing

The question of drug testing in the workplace is a very sensitive and controversial issue. In an effort to determine how extensive drug testing is in the Alberta workplace at present, respondents to all three surveys were asked to indicate if drug testing is conducted in any of their workplaces.

Of the minority of respondents in the work force survey who indicated their organization had a formal policy regarding substance use, less than 6% reported that their employers had drug testing policies. Thus, approximately 1.5% of people in the work force said their employer had drug testing programs. Workers in processing, transportation, and materials handling occupations were more likely to report the existence of drug testing. While there was no significant difference in this regard in terms of union membership or industry, there was some variation in terms of employer size, as shown in Table 6.23. Those working for large employers were much more likely to report drug testing policies.

Table 6.23
Work force Respondents Whose Employer has a Drug Testing Policy as a Portion of Those with Formal Substance Use Policies
n=525

Employer size	Drug testing
1 to 4 employees	3.0
5 to 9 employees	2.9
10 to 49 employees	3.1
50 to 99 employees	2.6
100 or more employees	7.3
TOTAL	5.8

A small minority (4%) of respondents in the employer survey indicate that they have a drug testing program. Two-thirds of these drug testing programs include testing for alcohol. Eighty-two percent of the testing programs include pre-employment testing, 60% include drug testing on referral by a supervisor who has noticed performance problems, and 60% include testing after an accident or incident. Table 6.24 illustrates how effective employers rate drug testing in terms of reducing alcohol use and drug use.

Table 6.24
Employer Rating of Drug Testing Effect in Reducing Alcohol and Drug Use
(percentage of employers)
n=325

Effect in reducing	**Very effective**	**Somewhat effective**	**No noticeable effect**	**Do not know**
Alcohol use problems in the workplace	20.0	50.0	0.0	30.0
Drug use in the workplace	30.0	50.0	0.0	20.0

The employer survey did not reveal any relationship between the existence of an employer drug testing program and the industry of the employer, the size of the employer, or the degree of unionization of the employer.

Only one of the union representatives surveyed indicated that drug testing is conducted in any workplaces where the union has members.

While there remain strong reasons for concern about drug use among the work force, alcohol use is, and is perceived to be, a more serious workplace concern than drug use. This suggests that approaches to dealing with substance use in the workplace, which are centred in drug testing policies, will not get at the full range of problems, and will likely overlook serious, although low profile, problems associated with alcohol use. In fact, drug testing appears to be relatively uncommon across Alberta workplaces. Most employers rated it as only somewhat effective in dealing with substance use. Rather, employers and unions focused on a performance-based approach to identifying and dealing with substance use problems in the workplace.

Employee Assistance Programs/Member Assistance Programs

To assist employees or members in coping with personal difficulties some employers and unions have established assistance programs. Programs instituted by employers are generally termed Employee Assistance Programs (EAPs), and those instituted by unions are generally termed Member Assistance Programs (MAPs). These programs have been known to offer assistance in a number of areas, including alcohol or drug problems, family problems, financial problems, legal problems, and other personal problems.

The work force survey revealed that over 30% of respondents have access to an EAP. Both industry and occupation are related to the reported access to an EAP. Table 6.25 and 6.26 break down the reported access to an EAP/MAP by industry and size.

Table 6.25
Access to EAP/MAP by Industry
n=1,890

Industry	Percentage of respondents
Public administration	63.4
Utilities	57.7
Forestry/mining	55.8
Telecommunications	46.6
Education	46.5
Upstream oil and gas	46.2
Health care	42.3
Manufacturing	39.1
Transportation	35.0
Finance	32.7
Social services	25.7
Other	20.9
Wholesale/retail	13.6
Other services	11.8
Construction	9.3
Agriculture	2.2

Table 6.26
Access to EAP/MAP by Size of Employer
n=1,871

Size	Percentage of respondents
1 to 4 employees	4.3
5 to 9 employees	6.4
10 to 49 employees	9.0
50 to 99 employees	18.4
100 or more employees	50.1

Agriculture is, relatively speaking, the least well covered by assistance programs, not surprising given the owner-managed nature of the industry. People in construction, wholesale and retail, and the other services also seem to have relatively limited access to an EAP/MAP. Upstream oil and gas, forestry/mining, telecommunications, education, utilities, manufacturing, health care, transportation, and public administration tend to report better than average access to an EAP/MAP. In terms of occupation, managerial/professional, clerical, processing, transportation, and materials handling were more likely than average to report having access to an EAP/MAP. As one would expect, those working for small employers tended to have very limited access to an EAP/MAP, while those working for larger employers had better access to an EAP/MAP. Union members are much more likely to have access to an assistance program than are those who are not union members. The work force respondents who thought the substance use situation was moderately serious were more likely to have access to an assistance program than those who thought the problem either extremely serious or not very serious. The EAP/MAP may have increased awareness of the issue in a realistic way.

Thirty-one percent of respondents in the employer survey indicate that employees in their organizations have access to an EAP sponsored by the organization. There was no significant relationship between an employer's industry and its likelihood of sponsoring an EAP. Larger employers were more likely to report having EAPs than were smaller employers. As expected, there is also a positive correlation between degree of unionization of an employer and whether or not it has an EAP. Employers with a higher proportion of their employees unionized are more likely to have an EAP than are employers with a low percentage of employees unionized. Eleven percent of employer respondents indicate that employees in the organization have access to a MAP sponsored by a union or employee association. Forty-three percent of the union representative respondents indicate that they sponsor a MAP.

The most common reason given by employer respondents for not having an EAP is that they do not think they need one (indicated by 52% of respondents without an EAP). Twenty-nine percent of respondents without an EAP indicate that they are too small to have an EAP, and 22% indicate that they cannot afford an EAP.

There is no relationship between a union's main occupation, its main industry, or the number of members it has in Alberta, and whether or not it sponsors a MAP. The most common reason given by union representatives for not having a MAP is that they "cannot afford it" (reported by one-third of the respondents without MAPs). "We are too small" is indicated by another 30% of respondents as the reason for not having a MAP. The notion of pooling resources for a cooperative MAP may be worth considering.

Almost all (94%) of the EAPs are described as broad brush programs that cover many employee problems. Eighty-three percent of the MAPs are described by employer respondents as broad brush programs covering many employee problems. Table 6.27 illustrates the areas in which MAPs reported providing assistance.

Table 6.27
Areas in Which MAPs Provide Assistance
(percentage of respondents)
n=40

Area	Percentage
Drug or alcohol problems	100.0
Family problems	94.1
Personal problems	88.2
Personal and other work-related problems	76.5
Financial problems	58.8
Legal problems	41.2

Table 6.28 illustrates the ways in which EAPs and MAPs receive referrals.

Table 6.28
Types of Referrals Received by EAPs and MAPs
(percentage of employers and unions, respectively)

Type of Referral	Percentage of EAP/MAP referrals
EAPs	
Self referrals	96.0
Supervisor referrals	92.0
Co-worker referrals	69.0
Other	25.0
Drug testing	6.0
MAPs	
Self referrals	62.5
Supervisory/employer referrals	18.8
Union representative referrals	12.5
Other members' referrals	6.3

Ninety-four percent of employer respondents with EAPs indicate that all current full-time employees are eligible for assistance from their EAPs. Current part-time employees and employees' family members are eligible for assistance from approximately 60% of the EAPs. Current members are eligible for assistance from all of the reported MAPs, members' families from 63%, and retired members from 25%.

Three-quarters of the EAPs are funded by the employer alone; one-quarter are funded by the employees and the employer together. Over 70% of the MAPs are funded by the union or association alone; 17% are funded by the union or association and the employer together. Costs of the EAPs and MAPs varied widely, likely reflecting strong variation in the design and delivery of the programs. However, the average annual per employee cost of an EAP was just over $150. The average annual per member cost of MAPs was just over half that figure, $84.

Employee advisory or steering committees oversee 36% of the EAPs. Employer respondents are largely unaware of whether an employee advisory committee oversees the MAP. Almost three-quarters indicate that they do not know if such a committee exists; however, 17% indicate that there is such a committee and 11% indicate that there is no such committee.

Seventy-two percent of the union representatives indicate that some of their members have access to EAPs run by their employers. Seventy-three percent of respondents indicate that all of their members have access either to a MAP or an EAP. Eighteen percent indicate that none of their members have access to either a MAP or an EAP.

Education and Information

Background research indicated that information and communication to the work force was a prerequisite for effective substance use policies. The work force survey thus enquired about the receipt of information at work on the effects of substance use. Overall, less than a quarter of work force respondents reported having received such information in the last 12 months. Breakdown by industry is shown in Table 6.29. Forestry/mining, telecommunications, education, social services, transportation, utilities, and health care are all above average in having received information.

Table 6.29
Received Information at Work About the Effects of Substance Use
n=1,973

Industry	Percentage of respondents
Forestry/mining	40.8
Social services	37.7
Education	37.5
Health care	35.1
Telecommunications	34.7
Transportation	34.1
Utilities	33.2
Upstream oil and gas	29.4
Public administration	24.4
Finance	21.3
Agriculture	19.2
Manufacturing	19.1
Other	16.9
Construction	14.0
Other services	11.7
Wholesale/retail	9.1

In contrast, people in the construction industry, an industry we have identified as having relatively high risks of substance problems, reported relatively low levels of information. We also identified transportation as having potential problems. However, transportation contrasts sharply with construction in the extent of reported information. Wholesale and retail trades also have low levels of reported receipt of information. However, the potential problems are less extensive. It is possible that employers in sectors such as construction or wholesale and retail have tried reaching workers, but that workers simply do not recall the information. If this is the case, it implies the information has not been very effective.

Is further action needed and what types of action are preferred?

Respondents to all three surveys were asked whether more needs to be done and, if so, what they would recommend as the most appropriate responses to substance use and its impact on the workplace. These questions were designed to provide AADAC with an indication of its clients' views on the most effective way to deal with alcohol and drug use and its impact on the Alberta workplace.

Work Force Recommendations

Just over two-thirds of respondents in the work force survey indicate that more needs to be done about substance use in the workplace. There is some occupational pattern on this variable, with those in managerial/professional, sales, and service occupations tending to favour more action, while those in transportation, construction, processing, and primary occupations indicating more action is not needed. However, a majority of respondents in all occupations reported that more needs to be done.

In terms of industry, those in wholesale/retail and social services felt more needed to be done, as shown in Table 6.30. The construction sector is about average in expressing a need for more action, but shows a preference for educational programs.

Table 6.30
Suggested Actions by Industry
(percent of respondents recommending action)

Industry	More should be done	More workplace education	More access to treatment	Promote substance free lifestyles	More laws against substance use	Make the workplace more responsive to people's needs	Other
Agriculture	67.4	36.3	11.0	2.0	21.1	7.0	22.7
Forestry/mining	61.7	26.4	20.6	8.1	9.1	18.9	16.9
Construction	65.2	44.7	15.0	0.0	13.7	5.2	21.5
Telecom	55.8	45.3	17.0	0.0	9.7	11.8	16.2
Wholesale/retail	80.5	50.5	11.6	2.1	9.6	12.2	13.9
Education	68.7	51.6	16.1	.9	9.7	6.1	15.6
Social services	85.3	51.8	3.4	7.2	7.2	21.1	9.3
Public admin.	59.0	57.7	13.4	0.9	3.1	13.1	11.8
Upstream oil & gas	55.8	57.2	8.6	4.7	7.5	9.1	12.9
Manufacturing	63.7	52.8	13.6	0.0	12.6	12.1	8.9
Transportation	60.1	57.5	13.6	2.5	9.3	10.7	6.5
Utilities	66.4	50.3	17.2	4.1	3.8	6.2	18.4
Finance	71.5	38.2	32.6	1.5	5.5	9.6	12.7
Health care	75.3	44.0	21.8	1.7	8.8	6.8	16.9
Other services	74.9	39.1	16.3	1.4	8.8	17.7	16.7
Other	70.1	39.3	19.9	5.6	6.9	10.8	17.6
TOTAL	68.7	46.3	16.4	2.5	9.1	10.5	15.2

There was no difference in terms of employer size. Similarly, union and non-union workers were equally likely to report that more needs to be done. The most commonly recommended action was more education for workers/managers and supervisors, recommended by almost half the respondents. About one-eighth of respondents suggested more treatment facilities.

When asked who should be involved in dealing with substance use in the workplace, without prompting, respondents in the work force survey were most likely to nominate employers, followed by employees or employee committees. The majority of respondents in all industries said that employers should take the lead role, as shown in Table 6.31.

Table 6.31
Lead Role in Dealing with Substance Use in the Workplace
(respondents indicating more needs to be done)
n=1,209

Industry	Employers	Unions	Employees/ Workers	Employer/ Employee Committees	Community Groups	Medical	Gov't
Agriculture	52.3	0.8	13.8	3.0	7.0	3.3	15.3
Forestry/mining	49.4	0	25.7	3.6	0	0	12.2
Construction	61.6	0.9	8.8	4.5	0.9	2.7	20.6
Telecom	60.9	0	14.7	9.4	0	7.4	7.5
Wholesale/retail	61.1	0.6	14.8	9.0	0.9	6.5	5.8
Education	52.5	4.8	7.9	2.6	4.7	4.8	11.3
Social services	40.7	3.1	22.3	15.8	0	6.3	11.7
Public admin.	50.0	0	12.7	15.0	1.4	8.7	10.8
Upstream oil & gas	66.3	0	19.0	3.3	0	7.2	4.2
Manufacturing	60.2	1.9	12.7	2.6	2.8	1.9	11.1
Transportation	68.4	2.6	8.7	6.1	0	6.5	6.4
Utilities	56.9	0	16.8	0	0	3.8	15.0
Finance	60.1	2.6	10.9	13.1	2.6	4.0	5.2
Health care	55.6	2.5	15.1	8.4	0.8	12.5	2.5
Other services	58.7	0.5	13.1	8.0	2.4	11.2	6.2
Other	70.9	0.8	8.9	2.7	4.3	3.8	6.3
TOTAL	59.9	1.3	12.9	6.6	2.2	6.1	8.3

The majority of both union and non-union workers indicated that employers should take the lead role. However, unionized workers were more likely to see a significant employee role in dealing with substance use in the work force.

Employers' and Unions' Recommendations

Employers and unions were also asked for comments and suggestions on the need for further action. Seventy-eight percent of the employer respondents and over 82% of the union respondents indicate that more needs to be done to deal with substance use in the workplace in Alberta. Table 6.32 illustrates what actions employers and unions would recommend in responding to alcohol and drug use problems in the workplace, and which actions they indicate are the most important.

Table 6.32
Employer and Union Recommended Actions in Responding to Substance Problems in the Workplace
(percentage of respondents to each survey)

Actions	Respondents recommending action		Respondents indicating action as the most important	
	Employers n=325	Unions n=40	Employers n=325	Unions n=40
Promote "substance-free" workplaces through the media	53.7	40.0	11.2	16.7
Provide promotional materials for workplace wellness programs	62.7	60.0	6.6	6.7
Provide information on substance use in the workplace	68.4	50.0	5.4	10.0
Provide model policies on substance use in the workplace	55.7	30.0	5.4	10.0
Provide materials to train supervisors/managers in identifying and dealing with substance use problems	83.2	60.0	49.8	20.0
Provide more opportunities for workers to undergo residential treatment without threat of job loss	45.9	73.3	6.6	20.0
Provide more opportunities for workers to undergo out-patient treatment without threat of job loss	51.6	66.7	7.5	10.0
Drug testing	23.0	n/a	6.6	n/a
Other	5.3	6.7	0.8	6.7

There is no relationship between industry, size, or unionization level of an employer's perceived need for more action to deal with substance use in the workplace in Alberta. Similarly, there is no relationship between a union's main occupation, its main industry, or the number of members it has in Alberta, and whether its representative considers that more needs to be done to deal with substance use in the workplace.

The employer and union respondents were also asked to indicate who they thought should be involved in dealing with substance use in the workplace and who should take the lead role in dealing with substance use in the workplace. Table 6.33 illustrates the recommendations of the employers and unions in this regard.

Table 6.33
Employer and Union Recommendations for Who Should be Involved in Dealing with Substance Use in the Workplace
(percentage of respondents to each survey)

Group	Recommended involvement		Recommended lead role	
	Employers n=325	Unions n=40	Employers n=325	Unions n=40
Employers	85.7	87.5	50.8	26.7
Unions/employee associations	58.0	87.5	1.7	16.7
Workers/employees	76.7	87.5	8.8	16.7
Worker/employee committees	49.0	43.8	2.5	0.0
Worker/management committees	60.8	75.0	12.9	20.0
Community groups	26.9	31.3	0.4	0.0
Industry associations	42.0	31.3	4.6	0.0
Medical/health care professionals	65.7	75.0	5.4	0.0
AADAC	4.5	12.5	9.2	16.7
Government	23.3	34.4	2.5	3.3
Educational institutions	34.7	43.8	1.3	0.0
Professional associations	40.4	28.1	0.0	0.0

7. CONCLUDING REMARKS

Substance use among the Alberta work force is a serious and potentially costly problem. The three surveys have confirmed that substance use is widespread. The overall levels of use are similar to those found in other research of this type. Workers in every industry report problems associated with substance use. Reported problems increase with total consumption. The costs of substance use are driven by problems such as absenteeism. Accidents and injuries attributed to substance use, while more commonly covered in the popular media, were rarely reported in the surveys.

Alcohol use is much more prevalent in the Alberta work force than is drug use. Drug users are almost always drinkers, and heavy drinkers are much more likely to use drugs than the average person in the Alberta work force. Use of medications for colds or allergies is also very widespread, more so than use of tranquillizers or painkillers. Stimulants are rarely used by Alberta workers. In assessing the impact of medication use, it is essential to recall that, in many cases, the medications enable the workers to do their jobs. The need for the medications and the benefits of taking medications must be balanced against possible side effects. Communicating the precautions needed with the use of these medications is more of a challenge because of their widespread use.

Alberta workers prefer to drink with their friends and family. Drinking with co-workers is relatively uncommon. Those who do tend to drink with their co-workers are the heavier drinkers. Substance use **in the workplace** itself was very rarely reported. Drinking during work hours is more common among heavy drinkers than among the average workers. Thus, heavy consumption should be considered a risk factor for drinking during work hours. Those who use drugs at work (a very small proportion of the work force) reported that they often do so with other people. This raises further concern that drug users in the workplace may influence others to do so. While we found that the vast majority of the work force had work values that did not allow for substance use in the workplace, the norms of a small sub-group could still be influential.

Availability of drugs and alcohol varies across industries, but workplace availability and consumption patterns do not overlap. Availability of alcohol or drugs near the workplace is not associated with higher levels of consumption. This reinforces the views expressed by some of the workers we met in the exploratory research. Workers undergoing treatment explained that, if a worker is alcohol or drug dependent, he or she will find a way of getting the substances, whether or not they are immediately available in or near the workplace. Employers do not tend to see it the same way. Over 80% of employers surveyed reported that they have policies prohibiting substance use. Prohibition is one of the most common policies, and is also considered by employers to be one of the most effective. Union representatives surveyed concurred that prohibition was widespread.

While no sector or occupation can comfortably claim to be free of substance use, there are significant sectoral and occupational differences in drug and alcohol consumption and, in many cases, in the levels of problems attributed to substance use. Blue-collar occupations consistently report higher consumption. While other occupations showed some signs of heavy consumption, the consistently high levels in all consumption variables were most common in construction and transportation trades. Other sectors, specifically upstream oil and gas, utilities, and telecommunications showed some signs of unusually high consumption. Young men appear most likely to be heavy users of alcohol, and to be drug users. However, age and gender patterns in the workplace accounted for only a small portion of the variation across occupations. When we profiled the heavy alcohol user, we found an image that is frequently reflected in alcohol advertisements: younger, male, blue-collar workers drinking together, whether at breaks or after work. The fact that the advertised image captures the profile from this work force survey is not at all surprising. Advertisers spend considerable amounts of money in market research, and developing demographic and psychographic profiles of their target markets.

Most people drink moderately about once or twice a week, with friends or family. While heavy drinkers are somewhat more likely than other people to drink with their co-workers, they are also more likely to drink in other social contexts. In effect, co-workers going for a drink together simply offers another opportunity to indulge.

Some work design characteristics are positively associated with higher levels of alcohol consumption. In particular, shift work, travel, boredom on the job, and working at a remote work site are associated with higher than average levels of drinking. While workers themselves do not tend to attribute their substance use problems to these work design characteristics, employers and unions indicated that work design was often a factor in substance use. Job stress, while widely believed to be linked to substance use, was found to be not associated with higher levels of consumption. This supports an Ontario study, which found that workplace stressors are widely distributed across the population, but only a small proportion of workers cope with job stress by using substances.

People in different sectors of the work force perceive the extent of the problem differently. Moreover, the perception among the work force of the seriousness of the alcohol and/or drug problem does not always coincide with reported levels of consumption. For example, while 12% of transportation workers (one group of heavy users on average) regard the problem as extremely serious, construction workers (also heavy users) were less likely to consider it an extremely serious problem. Indeed, agriculture workers (generally light users) were more likely than construction workers to consider substance use to be a serious problem in their workplace.

Employer and union respondents themselves show a broad consensus on the seriousness of substance use problems. However, both groups tend to regard the substance use problems as less serious in their organizations than in Alberta workplaces overall. In other words, they told us that substance use is a problem but "not in my backyard." Similarly, work force respondents did not consider either drug use or alcohol use to be a serious problem **in their own workplace**. Almost one in four workers said they were aware of a co-worker with an alcohol problem, and just one in twelve reported knowing someone with a drug problem. Those people who know someone with a substance problem were more likely to regard the substance use issue as an extremely serious problem.

The sense that substance use is a problem "for others" is reflected when employers and unions look at the range of human resource related concerns they face. They generally do not put substance use issues at the top of their agendas. This finding poses a challenge in framing information and communication programs. A message that exaggerates the impacts of substance use in the workplace is not likely to be seen as realistic and credible. Audiences may regard it as describing "someone else's problems." In contrast, a message that emphasizes the more pervasive "sub-clinical" symptoms of substance use, helping managers and union leaders to recognize these, may be more effective in getting the issue on the agenda for action.

Workers who are current drinkers and/or drug users attributed personal and work-related problems to their substance use. Drug users were just as likely as drinkers to report problems associated with substance use. About 22% of drinkers reported at least one problem, 9% reported two problems, and another 10% reported more than two problems. By comparison, about 20% of drug users reported one problem, 6% reported two problems, and 12% reported more than two problems. The most commonly reported problems were similar for drug users and drinkers. Drug users were somewhat more likely than alcohol users to have tried to cut down. However, in both cases, trying to cut down was the most commonly reported symptom of a substance use problem. Feeling guilty about drug use was relatively more common among drug users than feeling guilty about alcohol use among alcohol users. This may simply reflect the societal tolerance for alcohol use. The relatively high identification with "trying to cut down" suggests a possible motivation for self-referral to EAPs or other treatment programs.

Interpersonal problems with friends and family attributed to substance use were reported by about 16% of respondents. Analysis of consumption variables by marital status revealed that persons who were separated also had a greater tendency to be heavy drinkers and/or drug users. Marital status was also related to the number of problems reported, with separated and never married respondents more likely to report problems due to substance use. These findings combine to suggest that broad brush EAPs may be appropriate vehicles for reaching workers with substance use problems.

Absenteeism and work slowdowns appear to be the most pervasive impact of substance use on the workplace. Perhaps more importantly, the work slowdowns and absenteeism problems also tend to cluster together. Workers who report absences due to substance use tend to be the same ones who report working very slowly or making a lot of mistakes.

Considering only the lost value of the absent worker (at the average wage), we estimated absenteeism attributed to substance use costs the Alberta economy approximately $400 million annually. A typical small workplace (five employees) could expect an annual cost of $1,140. For a firm with a 3% gross margin, this would mean the equivalent of $38,000 in revenues would have to be earned to cover the costs of such absenteeism.

Accidents and work injuries attributed to substance use were only rarely reported. However, the safety incidents tend to be clustered together. People who drank more were more likely to report having lost time in the past 12 months due to a work-related injury or illness. Workers who perceive their jobs to be risky are no more likely than the average worker to be light or occasional drinkers.

Progressive discipline seems to be the most common among employers' responses to substance use problems in the workplace, with the most common response to a first incident being a warning. Responses related to counselling are also relatively common. Referrals for professional counselling and supervisory counselling combined account for a greater portion of preferred actions than discipline. Almost half of employers have some formal substance use policies. Prohibition, progressive discipline, and provisions for sick leave for employees undergoing treatment are the most common policies. If an employee does require treatment, the majority of employers indicated they would offer some sort of sick leave (with compensation). Only a small minority reported they would dismiss the employee. Most employers with substance use policies would also allow time off for ongoing treatment and follow-up care programs in the workplace. These approaches seem to reflect a recognition of the value of the employee to the organization.

About a third of work force respondents report having access to an EAP or a MAP, with those working for larger employers and in unionized workplaces more likely to have access to such programs. Agriculture is the industry least well covered by EAPs, not a surprising finding given the owner-managed nature of the sector. However, as the incidence of reported problems and consumption levels is also low in this sector, the limited access to assistance programs is less of an issue. People working in the small- and medium-sized businesses in other sectors, particularly higher risk sectors, such as construction or transportation, are more likely to have an unmet need for an EAP/MAP. Less than a quarter of the employers without EAPs attributed the lack of an EAP to affordability. The most common reason for not having an EAP is that they feel they do not need one. However, the incidence of low-profile workplace problems and the prevalence of heavy substance use is spread quite evenly across large and small employers. Given that a small business often complains about difficulties retaining skilled workers, the investment in an EAP may well pay off. We found that per employee costs of EAPs varied widely. There may be cost-effective ways for small businesses to provide such services to their workers, such as groups of small businesses sharing EAP services.

A majority of work force respondents expressed the view that more needs to be done to deal with substance use in the workplace. However, there were significant variations in terms of industry and occupation in this regard. Although a majority in all occupations indicated more needs to be done, those in transportation and construction were among the occupations least likely to ask for more action. Those with higher reported consumption levels and with higher levels of self-identified problems (for example, construction and transportation) were somewhat less likely to asking for more action. This finding may make it more challenging to target action to those sectors that show more risk of substance use problems.

Nevertheless, a sectoral approach would appear logical, given the consistent variations by industry and occupation. Alberta Occupational Health and Safety has experience with a sectoral approach to workplace safety (Partners program). Similarly, there are industry-based safety education associations like the Alberta Construction Safety Association. These programs help to develop networks within sectors for sharing information and ideas. Only a small minority of respondents consider that government should take the lead in action to deal with substance use in the workplace. Rather, there is a preference for employer sponsorship or for joint employer-employee sponsored actions. This preference fits with the sectoral "partnering" model. Rather than defining a master initiative that would attempt to be all things to all people, encouraging and supporting sectoral "self-help" initiatives would allow for programs that suit the differing workplace situations across industries in Alberta.

There seems to be a strong preference for educational actions (prevention) over treatment actions. The finding that consumption levels were higher among persons with lower levels of educational attainment suggests that careful attention be given to framing educational programs in a manner that is readily accessible to the target audience. Again, the sectoral approach would facilitate the design of materials appropriate to different occupations and skill sets.

** ** **

Substance Use and the Alberta Workplace

Appendices

AADAC Alberta Alcohol and Drug Abuse Commission
An Agency of the Government of Alberta

Price Waterhouse

OCCUPATIONAL HEALTH AND SAFETY
HERITAGE GRANT PROGRAM

SUBSTANCE USE AND THE ALBERTA WORKPLACE: THE PREVALENCE AND IMPACTS OF ALCOHOL AND OTHER DRUGS

Appendices to the Final Report

January 1992

A Report Prepared By
Price Waterhouse

For
Alberta Alcohol and Drug Abuse Commission

Funded By
Occupational Health and Safety
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Appendices to the Final Report

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APPENDIX A

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APPENDIX B

EXPLORATORY RESEARCH FINDINGS

EXPLORATORY RESEARCH FINDINGS

This appendix presents the combined findings from the published research with those from the interviews and focus groups conducted in the early stages of this study. It reveals both the convergence and divergence of views on these topics.

The findings of the initial research are presented as they relate to the following topics:

- prevalence and patterns of substance use;
- factors contributing to substance use in the workplace;
- workplace impacts of substance use; and
- response options.

Prevalence and Patterns of Substance Use

Research into the prevalence of substance use among the work force is limited. Most of the research dates from the last decade. Much of this research has focused on safety-sensitive workplaces, often in the transportation sector. Thus, for example, Transport Canada sponsored research into substance use among workers in all modes of transportation. Similarly, the British Columbia Trucking Association (BCTA) sponsored a survey and limited drug testing among truckers in British Columbia. National Defence has conducted three large-scale surveys of its members, and is currently developing a system for ongoing monitoring of the health and lifestyles of members. The 1985 Health Promotion survey contained some information on alcohol and other drug use among the wider population. In 1989, Statistics Canada undertook the National Alcohol and other Drugs Survey (NADS). Of all the Canadian research, the NADS seems to set a very good standard for the current research.

Alcohol is the substance "of choice." Nevertheless, problems with alcohol abuse among workers affect a relatively small proportion of the total work force.

- There is general concurrence in the literature and among those contacted that alcohol abuse is far more prevalent and a far greater problem in the workplace than is other drug use. The NADS estimated that 82% of Albertans are current drinkers and 9% of the Alberta work force are heavy drinkers while 8% use other drugs. On a Canada-wide basis, the NADS estimated that about 11% of the population drink on four or more occasions a week and that 6% of the population consume 15 drinks or more a week. This suggests that, while alcohol consumption is widespread, heavy use is relatively limited.

- Most of those contacted in the exploratory research estimated alcohol problems affected about 5% to 10% of their work force. They perceived that alcohol problems were found in all occupations and industries. However, they noted that the upstream oil and gas sector was reputed to face more intensive problems.

- Primarily because age is positively correlated with drinking, drinking is somewhat higher among those in the work force than the general adult population. While some interviewees perceived that the alcohol problems were heaviest among young workers, others insisted that older workers had more problems. The consultants probed on the age issue. The explanation for the difference of opinion may be that those who held that older workers faced more alcohol problems may be generalizing from their experience with those seeking help.

- Gower's analysis of the NADS data shows that women in the work force are more likely to drink heavily than their counterparts who are not in the work force. Indeed, Gower also found that the gender differences in occupations accounts for a significant proportion of the apparent occupational distinctions in alcohol use among workers. Thus, for example, the relatively low use of alcohol among clerical, sales and service workers reflects the female dominance of those occupations. Some occupational differences remain despite the gender factor. For example, the proportion of professional workers with heavy alcohol use is less than half the average in the work force as a whole while blue collar occupations showed a higher level of heavy use.

- No clear epidemiological patterns emerge regarding the distribution of drug use in general or on the job across occupations and industries. Specific job dimensions show very low correlations with recency or frequency measures of drug use.

- In a national consultation on substance use in the workplace, both labour and management emphasized that the problem was present at all levels of the organizations, from the factory floor to the boardroom. However, most said they had never collected any information on the incidence of the problem. This series of consultations also suggested that the rates of substance use were significantly higher in the North.

- Focus group participants noted that, in larger metropolitan areas, abuse is probably less prevalent than it used to be. However, in "out-of-town" isolated working conditions there is often a bar on-site or nearby. If there is no easily accessible bar, the workers will bring alcohol onto the site themselves.

- Gower's analysis of the NADS found that the relationship between substance use and education was not a simple one. Those with the lowest education levels showed the lowest drug use. Usage increases with education up to those who took some post-secondary education. However, usage levels drop among those who completed post-secondary education.

- The NADS data indicate that 6.5% of Albertans are current users of illicit drugs although a much higher proportion admit to having used illicit drugs sometime in their lives. As with alcohol, illicit drug use is heavier among men than women and heavier among young men than older men. On a national level, higher rates of illicit drug use (specifically cannabis) are found among students and those seeking work. Blue-collar workers have a somewhat higher usage rate than white collar workers.

- The NADS survey found that multiple substance use was relatively common among heavy users. Thus, 26% of heavy drinkers reported using drugs. Similarly, 28% of drug users were heavy drinkers. Interviewees perceived a similar pattern of multiple use. They commented, for example, that a user might carry a joint on the job while a bottle would be too conspicuous.

- The focus group participants also noted that very often a person will use/abuse more than one substance. This leads to an overlap of problems.

- The abuse of other substances is generally recognized as implicating a relatively small portion of the population. The NADS found that 5% of adults had used prescription drugs in the 30 days prior to the survey. Highest use was found among women, particularly older women, many of whom are not in the work force. It is very difficult to define the level of abuse of over-the-counter drugs. In safety sensitive positions (such as crane operators or transportation occupations), even minimal use of an over-the-counter medication could be debilitating. The issue with other drugs is not the use per se, but the impairment of job performance.

- Use of substances also appears to be more prevalent around payday, according to the focus group participants.

A number of special surveys have been done in safety sensitive areas. Findings of these surveys include the following:

- FAA (Federal Aviation Administration) records show 237 incidents of drug or alcohol abuse by flight crews between 1984 and 1990, at least six of which involved major airlines.

- In collaboration with the Medical Examiner's office, Alberta Occupational Health and Safety (AOH&S) examined blood samples from 459 occupational fatalities that had occurred in Alberta between 1979 to 1986. They found that 40 workers (less than 10%) tested positive for alcohol, 28 for prescription drugs, 22 for non-prescription drugs, and 10 for cannabis. The findings indicate that alcohol is the most commonly used substance. In 65% of the fatalities involving alcohol, the accident was caused by falls, use of a motor vehicle, or being caught in/under something. The research team found statistically significant differences between these and other accidents in which alcohol was detected.

- In 1988, it was found that one of every six railway employees whose job affected safe train operation had a substance problem. In fact, CN Rail has found substance use among 17% of employees wanting to transfer into a safety-related position or from one such position to another; 13% of prospective employees screened from 1986 to 1988 tested positive for substance use and were not hired. Similarly, over the same time period at CP Rail, 16% of people applying for jobs failed drug-screening and were not hired.

- Imperial Oil recently completed a survey of 13,000 employees across Canada. Over 20% of respondents admitted to using alcohol during work hours (including meal breaks) at least once in the four-week period prior to the survey. Just 1% said they had used street drugs during work hours. Imperial Oil has since announced a plan for substance testing for new employees and for existing employees working in safety-sensitive areas.

- The BCTA conducted a survey in 1989, and found that 56% of drivers said they consumed alcohol in the week prior to being interviewed including 2% "today". The BCTA survey also revealed that, besides alcohol, marijuana or hashish were by far the next most commonly used drugs. The next most prevalent drug used was codeine (painkillers).

- The BCTA survey found that drivers who were young and unmarried were more likely to be substance users. It found no significant differences between union members and other drivers.

- The BCTA study also involved drug testing through urine samples. The results of the objective assessment of drug use were compared to reported use, finding that people tended to report drug use accurately.

- Another study in 1988 found that 22% of the employees of British Columbia's forestry giant, MacMillan Bloedel, have drug or alcohol problems, or serious emotional problems, or a combination of these.

- Lawlor estimates that between 1% and 10% of the world population, and 4% and 6% of the work force in Canada, are alcohol dependent and disabled by drinking. Lawlor identifies the signs of a workplace alcoholic as: they take more time off work; they are less efficient; they exhibit a change in attitude; and they may exhibit mood swings and become depressed, belligerent, and argumentative.

- Health News has ranked the drugs most commonly abused (in order) as alcohol, sleeping aids, tranquilizers, and assorted painkillers. Focus group participants also noted that alcohol is by far the most prevalent substance used. They stated that marijuana is the next most popular substance, and that all other substances are much less prevalent. Focus group participants did not tend to consider prescription and over-the-counter medications as "substances" in this context. Unless prompted, they did not describe potential problems associated with the use of such medications.

- A United States research team focusing on an aerospace plant, analyzed the medication use among workers involved in safety "incidents" and accidents. Medication use was found not to be significantly different between those involved in the incidents and a control group. Rather, they found that time on the job was a stronger predictor of the likelihood of being involved in such incidents. New workers (less than one year) and, presumably, with less experience in the jobs, had a significantly greater likelihood of being involved in such incidents.

- A study for Transport Canada indicated that drug abuse in the country's transportation industry is no greater than that of the general population. The study found that the percentage range of heavy drinkers was as follows: airports 1% to 3%, aviation 0% to 6%, marine 3% to 9%, and surface 1% to 3%.

Factors Contributing to Substance Use in the Workplace

Research has also attempted to determine if there are certain factors that may contribute to substance use in the workplace.

- Individual factors, such as low self-esteem, having dropped out of school, participation in delinquent activities, and relationship problems, are suggested by Mensch as much stronger predictors of substance use than are specific job conditions. Similarly, pride in the job they are doing has a significant effect on a worker's likelihood to use/abuse a substance according to the focus group participants. Those workers who are proud of what they do and/or have high self-esteem are much less likely to use/abuse a substance. Focus group participants also noted that, when a group of workers with low self-esteem are grouped together, the self-esteem problem worsens. It should be noted, however, that no cause-and-effect relationship has been determined between the factors listed above and substance use. Participants in the focus groups also noted that people with untreated abuse problems tend to gravitate towards less satisfying jobs, with a downward spiral ultimately leading out of the labour force.

- Fatigue and stress are reported by users as factors leading to increased reliance on wake-up pills and other substances. Focus group participants agreed that high stress jobs can be more likely to contribute to substance use/abuse, but stated that training and experience can help workers to cope with the stress. They also acknowledged that job design can increase the likelihood of fatigue, for example, in the trucking industry. This in turn may lead to an increased likelihood of substance use/abuse.

- AOH&S notes that there is a tendency towards a family history of alcoholism. Whether this tendency is genetic or not remains undetermined.

- Workplace norms/habits, such as going to the bar after work, and having a drink of alcohol with lunch, have been expressed as factors contributing to substance use.

- Work design factors, such as task repetition and isolated work conditions, have been linked to employee boredom and increased use of substances for recreational and stress reduction purposes.

- A report by Ontario Ministry of Labour on substance abuse in the workplace states that, while most workers are exposed to workplace stressors such as repetitious duties, periods of inactivity or boredom, or remote or irregular supervision, to some degree, relatively few become substance abusers.

- Focus group participants noted that the accessibility factor plays a part in substance use/abuse. Alcohol is readily available to the population in general, even at sporting events and business/social functions. Health care workers also have access to narcotics. Interviewees also noted that trafficking occurs in places frequented by workers.

- The accessibility issue is also seen as a factor in responding to substance use problems. The Health and Welfare consultations found that it is very difficult for an individual worker to "kick the abuse habit" alone while operating in a family, community or workplace in which substance use is a way of life. Even when treatment occurs, the worker returning to the unchanged environment has difficulty maintaining the new lifestyle.

Workplace Impacts of Substance Use

The impacts of substance use on the worker who uses the substance are relatively widely documented. These impacts include:

- potential loss of employment and career path opportunities;

- deteriorating relationships both at work and among friends and family;
- financial problems; and
- physical ill health.

There is also general agreement that substance use impacts on workers and the workplace, whether the use occurs on the job or off the job. Generic classes of impacts are:

- impacts on productivity/efficiency/worker performance;
- impacts on worker safety and/or public safety resulting in injury and/or property damage; and
- problems arising from abuse of trust.

Most studies do not seem to make this distinction among different types of impacts. They do, however, differentiate between impacts and costs of substance use.

Impacts

- Regen states that it has been shown that workers who use drugs have three times as many accidents, are late twice as often, use three times the amount of sick benefits, make twice the number of errors, and work at two-thirds of their potential when compared with their peers.
- An Ernst & Young survey in 1990 found that, in the opinion of 40% of the retailers participating in a study, there was evidence that thefts by employees were drug-related.
- Worklife Report says that there is a high correlation between heavy use of alcohol or drugs, and health and safety problems in the workplace.
- A study conducted by AOH&S analyzed reports of accidents resulting in the death of a worker that were investigated by AOH&S between 1979 and 1986. The study found that 10.7% of the deceased workers tested positive for alcohol. Sixty-five percent of the fatal accidents where alcohol was detected were made up of accidents caused by "falls", use of a "motor vehicle", or being "caught in/under". The study states that alcohol could have been implicated in any of these types of accidents.
- Many writers and those interviewed question the degree to which accidents can be attributed to substance use alone. For example, one interviewee noted, while substance use may be a factor in a workplace accident, faulty equipment may also be implicated. Sleep deprivation associated with shift work can lead to some of the same impaired judgements associated with substance use.

- Focus group participants stated that it is possible for an employee who uses/abuses a substance to be more productive or efficient than he would otherwise be. They also noted that the effect of substance use/abuse may not be seen immediately, but may result in a liability downstream. The literature focuses on the beneficial effects of medication use on job performance. Indeed, some researchers note that some workers would be unable to perform their jobs were it not for the use of certain psychoactive medications. More commonly, focus group participants pointed out that a worker might have the choice of staying home from work, or working but taking a cold or allergy medication. While his/her performance might not be up to normal, it is a better contribution than complete absence.

- According to Fuerst, there is a lack of firm epidemiological data regarding the reductions in performance and productivity at the work site as a result of workers using medications.

Costs

- Costs associated with workplace substance use problems typically include costs of employee assistance programs (EAPs), as well as insurance or Workers' Compensation Board (WCB) costs to support workers who are off the job temporarily for treatment.

- The cost of alcohol and drug abuse in the workplace has been estimated to be up to 2% of a business's gross sales due to pilferage, decreased productivity, loss of customers after contact, reduced incentive to perform for other workers who witness abusers slacking off, or accidents.

- The task force of Alcohol and Drug Abuse in the Workplace in British Columbia has stated that impairment in the workplace, from whatever cause, will decrease productivity through increased absenteeism, accident costs, industrial relations costs, and disruption of communication with supervisors, fellow workers, and business associates.

- Studies vary in projecting the cost of workplace substance abuse to employers, but generally cost estimates exceed $100 billion per year in the United States.

- The annual cost of drug use and abuse to the Canadian economy has been estimated at $2.6 billion.

- The Australian Alcohol and Drug Foundation has estimated that alcohol abuse costs the Australian economy almost $1 billion Cdn annually in workplace accidents, reduced productivity and health bills.

Response Options

Organizations exhibit a wide variety of responses to substance use and its impact on the workplace.

- As of 1987, 49% of 364 respondents from the Fortune 100 companies were conducting pre-employment drug testing, and more than 30% of the Fortune 500 had regular drug testing programs as of 1989.

- CN Rail has long had rules in place to deal with substance use/abuse. CN's "Rule G" states that employees are not to use substances. "Rule E" states that an employee who knows that another employee is using/abusing a substance is required to do something about it.

- EAPs dealing with drug abuse are generally viewed as an effective way to combat the problem; however, most EAPs are reported to be "broad brush" programs that often do not deal directly with substance use/abuse problems. In fact, most EAPs deliberately take a holistic approach. The focus group participants stated that while EAPs do play a role in dealing with substance use, they tend to intervene after the fact, when a substance use/abuse problem had already developed. They suggest that something should be done before this point is reached.

- In a survey conducted by Labour Canada and Health and Welfare Canada, it was found that the larger the organization, the more likely it is that an EAP will be in place. Smaller organizations indicated that they tend to handle employee problems that affect workplace performance on an ad hoc or informal basis.

- MacDonald and Dooley also found that the construction and retail trade sectors in Ontario are under-represented by EAPs. It is possible that the member assistance programs (MAPs) in the Alberta construction trade unions compensate for this situation. However, the large proportion of very small employers in both retail and construction helps explain the dearth of EAP/MAP programs.

- MacDonald and Dooley, in a survey of EAPs in Ontario, found that approximately 16% of the work force is covered by EAPs because EAPs are much more common among larger employers. MacDonald and Dooley estimated that 27% of the work force, working at worksites with 50 or more employees, are covered by an EAP.

- According to MacDonald and Dooley, over half the worksites with EAPs had mechanisms for both voluntary (self-referral) and formal union or management referrals. EAPs rely on outside resources for treatment, with 94% of EAPs referring their clients to other services in the community. This reflects a long-term trend away from relying on internal services for both assessment and treatment. A large proportion of the EAPs allowed for use by the employee's family, reflecting the recognition that personal and family problems can affect the worker.

- There has been an increase in employees referring themselves to EAPs, according to focus group participants.

- In the Health and Welfare Canada consultations on substance use in the workplace, labour and management reported that they wanted to extend EAP/MAP benefits beyond the immediate work force. They explained that, in industries with seasonal or periodic employment, workers may become substance abusers during the lay-off period. Unfortunately, such behaviour can result in diminishing opportunities for re-employment and a gradual marginalization of the worker. Community-based treatment programs, combined with job search skills, were seen as advantageous.

- Focus group participants stated that the key factor in assessing if a response is required to a worker's substance use/abuse is whether the use/abuse is affecting the work performance of the individual. Supervisors' referrals should be performance-based, they said.

- Weiss states that, ideally, the employer should attempt to help the employee to ensure the quality of work, and to enhance worksite safety without unduly violating the employee's privacy.

- According to Lawlor, successful treatment of a workplace alcoholic requires that the alcoholic do the following: face the truth, request medical help, receive psychological help, and have support.

- About 30% to 40% of employees referred to EAPs for treatment are soon back to full productivity, according to Health News. Another third do reasonably well, and about a third relapse.

- The Ontario Ministry of Labour report on substance abuse in the workfarce suggests that assistance with re-integration into the work force and community and post-treatment monitoring should help prevent relapse.

- Focus group participants stated that there is still some stigma attached to having a substance use/abuse problem in the workplace, but that co-workers of users/abusers are much more tolerant and understanding of a worker seeking treatment than they used to be.

- Companies set norms and sanction the use of alcohol by serving it at their social or business functions. While the amount of alcohol at company social events is not necessarily decreasing, the focus group participants noted that companies are tending to take more responsibility for their employees at such events.

- Focus group participants also suggested that an appropriate response to the substance use/abuse problem would be to continue the work being done in schools to make young people aware of the consequences of use/abuse, and to provide information on where they can seek help.

- The view of AOH&S is that it does not believe in mandatory drug screening. The department does not see the justification for testing. It believes that EAPs or early detection are more cost-effective than drug testing.

- Focus group participants noted that the majority of workers are in favour of employers using some method on the worksite to control use/abuse. The workers are concerned about their own safety on the job. Union groups also feel a need to keep their images strong, and to deal with substance use/abuse.

- The focus group participants also suggested that increased employer education (about what to look for in detecting a substance use/abuse problem) would help towards early detection, and that good examples set by supervisors in regards to use/abuse "go a long way".

- Focus group participants also suggested that the provincial government should use the profits from Alberta Liquor Control Board sales to educate the citizens of the province about substance use/abuse.

APPENDIX C

METHODOLOGY

METHODOLOGY

This appendix outlines the research methodology used for quantitative assessment of the workplace impacts of substance use among the Alberta work force. The research was conducted in three stages:

- initial research and refinement of the methodology;
- development of the survey instruments and field work; and
- analysis and reporting.

Stage 1: Initial Research and Refinement of the Methodology (March 12 to May 29, 1991)

This initial stage of the research involved:

- conducting a literature search and reviewing published reports/studies;
- developing a profile of the Alberta work force, based on data from Statistics Canada and Alberta Labour;
- conducting interviews and focus groups with policy makers, researchers, representatives from various industries, and unions; and
- developing a research methodology.

1.1 Literature Review

Literature on the subject of alcohol and other drug use/abuse and its effect on the workplace was obtained in a number of ways:

- an on-line literature search was done in the Price Waterhouse Toronto office;
- a literature search at the University of Alberta libraries was conducted;
- other documents familiar to the consultants were obtained; and
- the members of the project steering committee were asked to provide literature or references that would be of value.

After the literature was gathered, it was reviewed by the consultants. The review centred on issues related to measuring the prevalence of alcohol and other drug use, on impacts on the workplace and on initiatives designed to address the problem, both in a preventive and a remedial manner. A summary of the literature review findings is presented in Appendix B of this report.

1.2 Profile of the Alberta Workplace

This profile of the Alberta workplace was developed by analyzing information gathered from Statistics Canada and Alberta Labour reports. The most recent data available, up to 1989 or 1990, was used in developing the profile. The consultants also looked at trends since 1984 to help indicate how the profile might have changed by mid-1991.

The tables on pages 5 to 16 of this appendix illustrate the structure of the Alberta labour force.

Table 1 indicates that, of the total provincial labour force (1,324,000), over 55% is male. Men also comprise 55% of the employed population, but only 53% of the unemployed population. Thus, there is a slightly higher representation of women in the unemployed population than in the employed population. Since 1984, the male percentage of the population has been steadily decreasing (by less than .25% annually), while the female percentage has been steadily increasing (by a similar amount). This is reflected in the decreasing percentage of men in the labour force, and the corresponding increasing percentage of women in the labour force.

The age structure of the Alberta labour force is illustrated in Table 2. In 1990, 56% of the total labour force was in the age bracket of 25 to 44 years, 23% was age 45 to 64, 19% was age 15 to 24, and only 2% of the labour force was age 65 or older. When the labour force is broken down by sex, this trend remains the same:

- 56% of the male labour force and 57% of the female labour force is age 25 to 44;
- 24% of the male labour force and 22% of the female labour force is age 45 to 64;
- 18% of the male labour force and 20% of the female labour force is age 15 to 24; and
- 2% of the male labour force and 1% of the female labour force is age 65 or older.

The occupational structure of the Alberta labour force is illustrated in Table 3. Occupational definitions appear in Appendix F. The largest single occupational group in the province is managerial, with 389,000 members (30% of the labour force). The next largest group is clerical with 209,000 members (16% of the labour force), followed by service with 181,000 members (14% of the labour force). Managerial occupations saw a slow but steady increase in the mid-1980s but have remained stable since 1987. Several occupational classes have shown slight fluctuations, but no significant overall change: clerical, sales, primary occupations, and processing. Service, construction, transportation, and material handling occupations have shown no change as a percentage of Alberta occupations since 1984. Thus, the occupational structure of the province's labour force is not changing significantly.

Table 4 illustrates the seasonality of employment for various occupational classes in Alberta. Employment is highest in the summer months for all of the occupations except sales. Employment for sales occupations is highest in November and December.

A breakdown of the Alberta labour force by industry appears in Table 5. The service sector is the largest in the province with 452,000 members (35% of the labour force), followed by trade with 230,000 members (18% of the labour force). Transportation/communication/other utilities and manufacturing both employ 8% of the provincial labour force. There have been no significant changes in the distribution of jobs by industry in Alberta since 1984.

Unionization rates in Alberta are presented in Table 6. Alberta has the lowest unionization rate in Canada (26.1%). The highest rate of unionization in the province occurs in public administration (72.2%). The transportation and communication industries exhibit a unionization rate of 46.3%. The construction trades have a rate of 41.1%. No other industry has a unionization rate above 30%.

Table 7 outlines the size of the Alberta labour force by geographic region. The labour force is, as one would expect, concentrated around the larger metropolitan areas in the province. The largest portion of the labour force (35%) is in the city of Edmonton and surrounding area. Calgary and surrounding area follows Edmonton closely at 33%. A further 8% of the labour force lives in the southern region of the province. Approximately 6% of the labour force is located in both the northeast region and the central region of Alberta. The northwest accounts for 5% of the labour force, with the east central region and western regions each holding 4% of the labour force.

The size of employers in major industries is presented in Table 8. This table illustrates the predominance of small businesses in Alberta. Large employers are concentrated in the government services, educational services, manufacturing, communications, mining, hospitality, and health sectors.

Table 9 presents a breakdown of employers by size and industry.

Overall, the structure of the Alberta labour force was found to have changed only marginally over the past several years.

TABLE 1
LABOUR FORCE CHARACTERISTICS IN ALBERTA
(1984 – 1990)

	POPULATION 15 YEARS & OVER (thousands)					LABOUR FORCE (thousands)				
	TOTAL	MALE		FEMALE		TOTAL	MALE		FEMALE	
YEAR		#	%	#	%		#	%	#	%
1984	1725	868	50.32	858	49.74	1241	718	57.86	524	42.22
1985	1736	870	50.12	866	49.88	1249	717	57.41	532	42.59
1986	1755	877	49.97	878	50.03	1266	718	56.71	548	43.29
1987	1763	878	49.80	884	50.14	1268	713	56.23	556	43.85
1988	1781	884	49.64	895	50.25	1290	718	55.66	572	44.34
1989	1807	897	49.64	910	50.36	1308	727	55.58	581	44.42
1990	1833	910	49.65	923	50.35	1324	736	55.59	588	44.41

	EMPLOYED (thousands)					UNEMPLOYED (thousands)				
	TOTAL	MALE		FEMALE		TOTAL	MALE		FEMALE	
		#	%	#	%		#	%	#	%
1984	1104	635	57.52	469	42.48	138	83	60.14	55	39.86
1985	1124	645	57.38	478	42.53	125	71	56.80	54	43.20
1986	1142	643	56.30	499	43.70	124	75	60.48	50	40.32
1987	1147	644	56.15	503	43.85	122	69	56.56	53	43.44
1988	1187	663	55.86	524	44.14	103	55	53.40	48	46.60
1989	1214	676	55.68	537	44.23	94	50	53.19	44	46.81
1990	1232	687	55.76	545	44.24	92	49	53.26	43	46.74

SOURCE: Alberta Statistical Review, Third Quarter, 1990
Alberta Treasury, Bureau of Statistics

TABLE 2
ALBERTA LABOUR FORCE
(1984 – 1990)
(thousands)

	1984		1985		1986		1987		1988		1989		1990	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
BOTH SEXES	1241	100	1249	100	1266	100	1268	100	1290	100	1308	100	1321	100
15–24 years	303	24	291	23	286	23	272	21	271	21	265	20	250	19
25–44 years	650	52	671	54	669	53	700	55	714	55	728	56	743	56
45–64 years	272	22	270	22	273	22	280	22	284	22	295	23	303	23
65 years & over	17	1	17	1	18	1	17	1	20	2	20	2	25	2
MALES	718	100	717	100	718	100	713	100	718	100	727	100	724	100
15–24 years	161	22	154	21	149	21	142	20	141	20	138	19	130	18
25–44 years	376	52	385	54	389	54	391	55	395	55	400	55	403	56
45–64 years	167	23	165	23	167	23	167	23	168	23	173	24	174	24
65 years & over	13	2	12	2	13	2	12	2	14	2	15	2	17	2
FEMALES	524	100	532	100	548	100	556	100	572	100	581	100	597	100
15–24 years	141	27	137	26	137	25	130	23	130	23	127	22	120	20
25–44 years	274	52	286	54	301	55	308	55	319	56	328	56	340	57
45–64 years	105	20	105	20	106	19	112	20	117	20	121	21	129	22
65 years & over	4	1	4	1	5	1	4	1	6	1	5	1	8	1

SOURCE: Statistics Canada, Catalogue No. 71-529

TABLE 3
ALBERTA LABOUR FORCE BY OCCUPATION
(1984 – 1989)
(thousands)

	1984		1985		1986		1987	
	#	%	#	%	#	%	#	%
BOTH SEXES	1241	100	1249	100	1266	100	1268	100
Managerial	330	27	353	28	369	29	375	30
Clerical	206	17	200	16	202	16	202	16
Sales	110	9	122	10	121	10	120	9
Service	172	14	176	14	177	14	173	14
Primary Occ.s	127	10	109	9	108	9	106	8
Processing, etc.	112	9	108	9	112	9	109	9
Construction	93	7	85	7	83	7	88	7
Transport Equip.	49	4	50	4	52	4	50	4
Material handling	36	3	37	3	37	3	40	3
Unclassified	7	1	8	1	7	1	7	1
MALES	718	100	717	100	718	100	713	100
Managerial	185	26	195	27	202	28	202	28
Clerical	33	5	32	4	31	4	35	5
Sales	62	9	70	10	65	9	60	8
Service	71	10	74	10	75	10	70	10
Primary Occ.s	100	14	88	12	85	12	83	12
Processing, etc.	99	14	96	13	99	14	96	13
Construction	91	13	83	12	81	11	86	12
Transport Equip.	44	6	45	6	48	7	45	6
Material handling	30	4	31	4	29	4	33	5
Unclassified	–	0	–	0	–	0	–	0
FEMALES	524	100	532	100	548	100	556	100
Managerial	145	28	156	30	167	30	173	31
Clerical	173	33	168	32	171	31	166	30
Sales	48	9	52	10	56	10	60	11
Service	101	19	102	19	101	18	103	19
Primary Occ.s	27	5	22	4	23	4	23	4
Processing, etc.	13	2	12	2	13	2	13	2
Construction	–	0	–	0	–	0	–	0
Transport Equip.	5	1	5	1	4	1	5	1
Material handling	6	1	6	1	8	1	7	1
Unclassified	5	1	5	1	5	1	4	1

	1988		1989	
	#	%	#	%
BOTH SEXES	1290	100	1308	100
Managerial	382	30	389	30
Clerical	206	16	209	16
Sales	123	10	123	9
Service	175	14	181	14
Primary Occ.s	116	9	111	8
Processing, etc.	108	8	115	9
Construction	86	7	88	7
Transport Equip.	51	4	50	4
Material handling	37	3	36	3
Unclassified	6	0	5	0
MALES	718	100	727	100
Managerial	205	29	203	28
Clerical	32	4	36	5
Sales	65	9	65	9
Service	71	10	74	10
Primary Occ.s	89	12	86	12
Processing, etc.	95	13	101	14
Construction	83	12	86	12
Transport Equip.	46	6	44	6
Material handling	31	4	30	4
Unclassified	–	0	–	0
FEMALES	572	100	581	100
Managerial	177	31	186	32
Clerical	174	30	173	30
Sales	58	10	58	10
Service	104	18	107	18
Primary Occ.s	27	5	25	4
Processing, etc.	13	2	14	2
Construction	–	0	–	0
Transport Equip.	5	1	5	1
Material handling	6	1	6	1
Unclassified	4	1	4	1

SOURCE: Statistics Canada, Catalogue No. 71-529

TABLE 4
ALBERTA EMPLOYMENT BY OCCUPATION
AVERAGE 1988 – 1990
(NOT SEASONALLY ADJUSTED)
(thousands)

MONTH	TOTAL EMPLOYED		MANAGERIAL PROFESSIONAL		CLERICAL		SALES		SERVICE		PRIMARY OCCUP.S		PROCESS-ING		CONSTRUC-TION		TRANSPOR-TATION		MATERIALS HANDLING & OTHER CRAFTS	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
January	1167	100	368	31.5	186	15.9	114	9.8	154	13.2	99	8.5	101	8.7	66	5.7	45	3.9	34	2.9
February	1179	100	372	31.6	187	15.9	113	9.6	162	13.7	99	8.4	103	8.7	63	5.3	46	3.9	34	2.9
March	1186	100	372	31.4	189	15.9	114	9.6	161	13.6	101	8.5	106	8.9	66	5.6	47	4.0	34	2.9
April	1189	100	370	31.1	189	15.9	116	9.8	158	13.3	103	8.7	105	8.8	68	5.7	45	3.8	35	2.9
May	1228	100	381	31.0	191	15.6	114	9.3	161	13.1	114	9.3	105	8.6	78	6.4	46	3.7	36	2.9
June	1242	100	380	30.6	192	15.5	115	9.3	164	13.2	117	9.4	108	8.7	83	6.7	48	3.9	34	2.7
July	1249	100	377	30.2	193	15.5	115	9.2	166	13.3	119	9.5	109	8.7	86	6.9	48	3.8	35	2.8
August	1246	100	372	29.9	192	15.4	117	9.4	160	12.8	125	10.0	112	9.0	87	7.0	48	3.9	34	2.7
September	1218	100	372	30.5	187	15.4	111	9.1	157	12.9	118	9.7	105	8.6	83	6.8	47	3.9	34	2.8
October	1215	100	373	30.7	188	15.5	113	9.3	158	13.0	113	9.3	106	8.7	82	6.7	47	3.9	34	2.8
November	1214	100	372	30.6	190	15.7	118	9.7	161	13.3	107	8.8	103	8.5	81	6.7	48	4.0	34	2.8
December	1206	100	374	31.0	192	15.9	118	9.8	162	13.4	102	8.5	103	8.5	73	6.1	47	3.9	34	2.8

SOURCE: Alberta Statistical Review, Third Quarter, 1990
Alberta Treasury, Bureau of Statistics

TABLE 5
ALBERTA LABOUR FORCE BY INDUSTRY
(1984 – 1989)
(thousands)

	1984		1985		1986		1987	
	#	%	#	%	#	%	#	%
BOTH SEXES	1241	100	1249	100	1266	100	1268	100
Goods–producing	385	31	362	29	361	29	355	28
Service–producing	849	68	878	70	899	71	906	71
Agriculture	96	8	84	7	85	7	89	7
Other primary	80	6	80	6	81	6	73	6
Manufacturing	100	8	98	8	97	8	96	8
Construction	97	8	88	7	85	7	87	7
Trans., Comm., etc.	102	8	99	8	100	8	94	7
Trade	214	17	226	18	236	19	228	18
Finance, Ins., etc.	62	5	64	5	63	5	63	5
Service	391	32	406	33	423	33	442	35
Public admin.	92	7	94	8	91	7	90	7
Unclassified	7	1	8	1	7	1	7	1
MALES	718	100	717	100	718	100	713	100
Goods–producing	303	42	283	39	283	39	280	39
Service–producing	412	57	430	60	433	60	430	60
Agriculture	68	9	61	9	59	8	63	9
Other primary	62	9	62	9	64	9	57	8
Manufacturing	76	11	73	10	72	10	73	10
Construction	88	12	78	11	77	11	78	11
Trans., Comm., etc.	76	11	77	11	76	11	71	10
Trade	121	17	128	18	132	18	124	17
Finance, Ins., etc.	23	3	25	3	23	3	24	3
Service	149	21	157	22	161	22	167	23
Public admin.	52	7	53	7	51	7	51	7
Unclassified	–	0	–	0	–	0	–	0
FEMALES	524	100	532	100	548	100	556	100
Goods–producing	82	16	79	15	78	14	75	13
Service–producing	437	83	448	84	466	85	476	86
Agriculture	28	5	23	4	26	5	26	5
Other primary	18	3	18	3	17	3	16	3
Manufacturing	24	5	26	5	25	5	23	4
Construction	8	2	9	2	8	1	9	2
Trans., Comm., etc.	27	5	23	4	24	4	23	4
Trade	93	18	97	18	104	19	103	19
Finance, Ins., etc.	38	7	39	7	39	7	38	7
Service	242	46	251	47	262	48	275	49
Public admin.	40	8	40	8	39	7	39	7
Unclassified	5	1	5	1	5	1	4	1

	1988		1989	
	#	%	#	%
BOTH SEXES	1290	100	1308	100
Goods–producing	372	29	367	28
Service–producing	912	71	936	72
Agriculture	96	7	90	7
Other primary	76	6	70	5
Manufacturing	103	8	105	8
Construction	86	7	89	7
Trans., Comm., etc.	99	8	101	8
Trade	231	18	230	18
Finance, Ins., etc.	63	5	67	5
Service	437	34	452	35
Public admin.	93	7	98	7
Unclassified	6	0	5	0
MALES	718	100	727	100
Goods–producing	286	40	289	40
Service–producing	430	60	436	60
Agriculture	65	9	64	9
Other primary	59	8	57	8
Manufacturing	77	11	79	11
Construction	77	11	80	11
Trans., Comm., etc.	73	10	74	10
Trade	127	18	129	18
Finance, Ins., etc.	25	3	24	3
Service	163	23	165	23
Public admin.	51	7	54	7
Unclassified	–	0	–	0
FEMALES	572	100	581	100
Goods–producing	86	15	78	13
Service–producing	482	84	499	86
Agriculture	30	5	27	5
Other primary	17	3	13	2
Manufacturing	27	5	26	4
Construction	9	2	9	2
Trans., Comm., etc.	26	5	28	5
Trade	104	18	101	17
Finance, Ins., etc.	38	7	43	7
Service	274	48	287	49
Public admin.	42	7	44	8
Unclassified	4	1	4	1

SOURCE: Statistics Canada, Catalogue No. 71-529

TABLE 6
UNIONIZATION RATES – ALBERTA – 1988
(percentage)

INDUSTRY	MALE	FEMALE	COMBINED
Agriculture, Forestry & Fishing	0.1	0.3	0.1
Other Primary Industries	5.4	0.2	4.3
Manufacturing	25.4	10.9	21.5
Construction	46.2	6.8	41.1
Transportation & Communication	50.2	37.3	46.3
Trade	9.1	9.6	9.3
Finance	0.1	0.1	0.1
Services	23.8	31.2	28.5
Public Administration	72.0	72.5	72.2
Total	26.5	25.7	26.1

SOURCE: Statistics Canada, CALURA, 1991

TABLE 7
ALBERTA ESTIMATES BY ECONOMIC REGION
(1984 – 1989)

YEAR	REGION	LABOUR FORCE		EMPLOYED	
		(thousands)	% of total	(thousands)	% of total
1984	Total	1241	100	1104	100
	810 (South)	94	8	87	8
	820 (East Central)	45	4	43	4
	830 (Calgary and area)	405	33	358	32
	840 (West)	52	4	46	4
	850 (Central)	68	5	62	6
	860 (Edmonton and area)	436	35	377	34
	870 (Northwest)	60	5	56	5
	880 (Northeast)	81	7	75	7
1985	Total	1249	100	1124	100
	810 (South)	98	8	90	8
	820 (East Central)	45	4	43	4
	830 (Calgary and area)	404	32	364	32
	840 (West)	53	4	47	4
	850 (Central)	70	6	64	6
	860 (Edmonton and area)	435	35	385	34
	870 (Northwest)	64	5	59	5
	880 (Northeast)	80	6	72	6
1986	Total	1266	100	1142	100
	810 (South)	100	8	92	8
	820 (East Central)	45	4	43	4
	830 (Calgary and area)	416	33	376	33
	840 (West)	53	4	48	4
	850 (Central)	70	6	63	6
	860 (Edmonton and area)	438	35	390	34
	870 (Northwest)	64	5	58	5
	880 (Northeast)	80	6	72	6
1987	Total	1268	100	1147	100
	810 (South)	98	8	89	8
	820 (East Central)	44	3	42	4
	830 (Calgary and area)	413	33	375	33
	840 (West)	52	4	47	4
	850 (Central)	73	6	66	6
	860 (Edmonton and area)	449	35	400	35
	870 (Northwest)	63	5	57	5
	880 (Northeast)	78	6	70	6

1988	Total	1290	100	1187	100
	810 (South)	102	8	95	8
	820 (East Central)	46	4	44	4
	830 (Calgary and area)	422	33	389	33
	840 (West)	53	4	48	4
	850 (Central)	74	6	68	6
	860 (Edmonton and area)	450	35	411	35
	870 (Northwest)	63	5	57	5
	880 (Northeast)	80	6	74	6
1989	Total	1308	100	1214	100
	810 (South)	103	8	97	8
	820 (East Central)	46	4	45	4
	830 (Calgary and area)	432	33	402	33
	840 (West)	55	4	51	4
	850 (Central)	72	6	67	6
	860 (Edmonton and area)	455	35	419	35
	870 (Northwest)	64	5	60	5
	880 (Northeast)	80	6	74	6

NOTE:

810: The area across the southern part of the province bounded on the east by the province of Saskatchewan, on the south by the international border and on the west nearly to the province of British Columbia. Census Divisions 01, 02, and 03.

820: The east central part of the province. Census Divisions 04, 05, and 07.

830: The area surrounding and including Calgary. Census Division 06.

840: The western part of the province along the British Columbia border plus areas north of Edmonton. Census Divisions 13, 14, and 15.

850: The area between Edmonton and Calgary. Census Divisions 08 and 09.

860: The area surrounding and including Edmonton. Census Division 11.

870: The Peace River area in the northwestern part of the province. Census Divisions 17, 18, and 19.

880: The northeastern part of the province which includes Fort McMurray. Census Divisions 10, 12, and 16.

SOURCE: Statistics Canada, Catalogue No. 71-529

TABLE 8

MAJOR INDUSTRY BY EMPLOYER SIZE

NUMBER OF EMPLOYEES	AGRI-CULTURE		FISHING/ TRAPPING		LOGGING/ FORESTRY		MINING/ QUARRY-ING & OIL WELLS		MANU-FACTUR-ING		CONS-TRUC-TION		TRANSPOR-TATION/ STORAGE		COMMUNI-CATION & OTHER UTILITY		WHOLE-SALE		RETAIL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
None	3134	18.4	2	6.5	63	14.2	644	14.7	283	5.7	3113	16.4	935	13.0	72	9.1	620	8.5	1187	5.9
Unknown	863	5.1	2	6.5	21	4.7	268	6.1	254	5.1	758	4.0	467	6.5	55	7.0	399	5.5	957	4.7
1–4	10843	63.6	22	71.0	262	58.9	2065	47.0	1950	39.0	10424	54.8	4430	61.4	443	56.1	3590	49.3	11129	54.9
5–9	1325	7.8	3	9.7	52	11.7	554	12.6	843	16.9	2625	13.8	686	9.5	96	12.2	1337	18.4	4144	20.4
10–49	822	4.8	2	6.5	43	9.7	659	15.0	1304	26.1	1860	9.8	587	8.1	82	10.4	1140	15.7	2581	12.7
50–99	43	0.3	0	0.0	2	0.4	97	2.2	187	3.7	143	0.8	57	0.8	15	1.9	118	1.6	144	0.7
100+	20	0.1	0	0.0	2	0.4	102	2.3	176	3.5	92	0.5	57	0.8	27	3.4	79	1.1	137	0.7
Total	17050	100.0	31	100.0	445	100.0	4389	100.0	4997	100.0	19018	100.0	7219	100.0	790	100.0	7263	100.0	20279	100.0

NUMBER OF EMPLOYEES	FINANCE & INSUR-ANCE		REAL ESTATE & INSUR. AGENT		BUSINESS SERVICES		GOV'T SERVICES		EDUCA-TIONAL SERVICES		HEALTH & SOCIAL SERVICES		ACCOMO-DATION, FOOD & BEVERAGE SERVICES		OTHER SERVICES		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
None	2732	47.1	1191	20.5	2588	16.2	108	17.8	89	7.0	354	4.7	433	5.2	1855	7.1	19403	12.7
Unknown	388	6.7	258	4.4	705	4.4	16	2.6	51	4.0	197	2.6	504	6.0	1962	7.5	8128	5.3
1–4	2025	34.9	3229	55.5	9421	59.0	116	19.1	664	52.1	4364	58.1	2895	34.6	18228	69.4	86100	56.2
5–9	311	5.4	651	11.2	1686	10.6	72	11.9	140	11.0	1349	18.0	1779	21.3	2463	9.4	20116	13.1
10–49	296	5.1	444	7.6	1354	8.5	147	24.3	177	13.9	989	13.2	2396	28.7	1576	6.0	16461	10.7
50–99	23	0.4	30	0.5	131	0.8	63	10.4	32	2.5	111	1.5	223	2.7	111	0.4	1530	1.0
100+	29	0.5	20	0.3	95	0.6	84	13.9	122	9.6	147	2.0	132	1.6	83	0.3	1404	0.9
Total	5806	100.0	5823	100.0	15980	100.0	606	100.0	1275	100.0	7511	100.0	8362	100.0	26278	100.0	153140	100.0

NOTE: None: self-employed, one person operation

Unknown: ambiguity in response to STC survey; respondents uncertain of their total employment base

SOURCE: Statistics Canada, Business Register

TABLE 9
NUMBER OF EMPLOYERS BY SIZE BY INDUSTRY

INDUSTRY	EMPLOYER SIZE (number of employees)					
	1-9	10-49	50-199	200-499	500+	Total
Agriculture	712	71	8	n/a	n/a	791
Other Primary	1026	378	114	29	21	1568
Manufacturing	2550	1106	341	57	22	4076
Construction	4782	918	138	20	3	5861
Transportation, Utilities	1864	391	102	26	18	2401
Trade	7630	1953	417	48	25	10073
Finance	41	16	3	2	1	63
Services	7442	2521	611	108	60	10742
Public Administration	150	111	65	12	28	366
Total	26197	7465	1799	302	178	35941

SOURCE: Alberta Workers' Compensation Board

1.3 Interviews and Focus Groups

Three focus groups were conducted in the first stage of the project.

- One focus group was held in Edmonton with representatives of union groups.
- Two focus groups (one in Calgary and one in Edmonton) were held with representatives of a variety of industries and employers.

Telephone interviews were held with representatives of groups who were not able to attend one of the focus group sessions.

The focus groups and interviews were held to discuss and confirm or deny the findings of the literature review and to receive input regarding the proposed methodology of the project. Topics covered in the focus groups and interviews included:

- prevalence of alcohol and other drug use/abuse;
- effects or impacts of substance use on the job or before work;
- workplace and external factors contributing to substance use and abuse;
- responses by employers, unions and fellow workers; and
- recommendations for the project methodology.

1.4 Development of a Research Methodology

As part of Stage 1 of the study, the consultants developed a proposal for the research methodology to be used in the study. The proposed methodology was then reviewed with the project advisory committee. Following the review, the methodology was refined and finalized.

Stage 2: Development of the Survey Instruments and Field Work (May 30 to September 15, 1991)

Information gathered in Stage 1 of the study was used to develop draft questionnaires for the three surveys of the work force, employers and unions. The questionnaires were adapted through consultation with the members of the project advisory committee. The surveys were then pre-tested with members of the work force, employer and union populations in Alberta. Final edits were made to the surveys to incorporate the results of the pre-tests before field work began.

Price Waterhouse surveyed three distinct populations:

- participants in the work force (both working level and managers);

- employers; and
- unions.

While the perspective of the work force participants was fundamental to the research, these individuals were only in a position to comment on the impacts of substance use on the workplace from their own experience. Recalling that other research has shown that a relatively low proportion of the work force are heavy users of alcohol or drugs, we expected that the direct experience of the typical worker/manager with both the problems and the treatment of substance use, would likely be limited. Therefore, we also queried respondents regarding their experience with co-workers. We felt that it was essential to anchor the data collection in experience rather than ask general opinions. Thus, we focused on critical incidents involving substance use.

The surveys of employers and unions add to the understanding of the prevalence of the problem, and provide detail on the ensuing costs and responses.

We acknowledge that very heavy alcohol or drug users may not have been reached by the telephone survey conducted on the work force. These individuals may have dropped out of the mainstream of society. However, by definition, these individuals would not be in the work force. Thus, while their substance use has a significant cost to society as a whole, it is not a current impact on the workplace.

The remainder of this section of Appendix C outlines the research methodology used for quantitative assessment of the workplace impacts of substance use among the Alberta work force. It is divided into three sections. The first section highlights the conceptual framework of the research. The second section outlines the questionnaire design. The final section defines the sampling required to provide the desired information.

2.1 Conceptual Framework

The major topics of interest in the research were:

- prevalence of substance use;
- factors related to substance use;
- workplace impacts; and
- response options.

The survey of the work force allowed reporting on these topics by worker demographics/employment status, and by workplace characteristics. The surveys of union and employer representatives placed more emphasis on the workplace impacts and response options. Highlights of the major differences between the surveys are noted in point form below.

Work force survey:

- Personal experience of substance use by type of substance and by frequency
- Experience with co-workers' and/or supervisors' substance use
- Demographic and occupational factors associated with substance use

Employer survey:

- Frequency of critical substance use incidents
- Emphasis on impacts/consequences of substance use in the workplace
- Exploration of a range of response options, and the degree of use and success of each option

Union survey:

- Frequency of critical substance use incidents
- Examination of the perceived efficacy of a range of response options
- Exploration of the extent to which union organization/affiliation influences scope and nature of responses

2.2 Questionnaire Design

The three questionnaires contained a common set of core questions, enabling better comparisons across the surveys. In addition, we used questions and definitions that have been used in prior research (particularly the NADS) in order to enable wider comparisons. Consumption measures covered the last 12 months, the standard measure used in North American research of this type. Workplace substance use incident measures focused on the last four weeks. This time frame has been used in other similar surveys, including Transport Canada. It also has the advantage of recency.

2.3 Sampling Plan

Three surveys were conducted focusing on the work force in general, employers, and unions. Work force participants were reached through a household survey by telephone. Mail surveys were used for employers and unions.

2.3.1 Survey of Work Force Participants

The population of interest was all participants in the work force in Alberta. A work force participant is defined to include anyone who is currently working (either full time or part time), as well as someone who is actively looking for work. Work force participants also include those who have been laid off or are on temporary leave or workers' compensation, but who intend to return to work. Work force participants include self-employed individuals and those employed by an organization. Both working level staff and managers are included. Students who do not hold part-time jobs and retired persons are excluded. A profile of the Alberta work force was developed to outline key characteristics of the Alberta work force in terms of:

- gender (male/female);
- age groups;
- occupational categories; and
- industry groups.

The standard definitions of occupation and industry used by Statistics Canada were applied to the survey. However, we recognized that respondents might not relate to the titles of occupational or industrial categories. These questionnaire items were asked in such a manner that the interviewer coded the responses. Interviewers were provided with a detailed list of occupational and industrial categories, which the computer automatically aggregated into the standard categories.

Sampling

To report on a sub-population (such as workers in a particular industry), we required a statistically reliable sample for that sub-population. It was thus decided to draw samples of sufficient size for reporting on occupational sectors, using standard occupational definitions.

In order to be able to make estimations from the sample to the overall population, it was important to keep the relative sizes of the various sub-sector populations in mind. The first column in Table 1 in Appendix D of this report shows the relative sizes of each sub-population. This table is based on the Labour Force Survey (LFS) data. The weakness in this tabulation is that it does not show the sub-sectoral breakdown. This is of particular interest in certain sub-sectors, such as oil and gas and farming. Table 2 in Appendix D shows a similar breakdown of the work force by industry. It is based on the Statistics Canada Survey of Employment Payroll and Hours of work (SEPH). It differs from the LFS in that it captures employer data on the employed population rather than work force data on all labour force participants. While the SEPH does not include agriculture, it is useful in this context because it provides a breakdown to the sub-sectoral level, allowing us to see which sub-sectors are relatively more important within industrial sectors in Alberta. Thus, the SEPH shows that upstream oil and gas dominates the "other primary" sector. On the other hand, the "manufacturing" sector in Alberta is relatively diverse, with the largest sub-sector being food and beverage processing. Durable goods manufacturing is also relatively large within the sector. Oil and gas processing and pulp and paper processing are relatively small. Transportation dominates the "transportation, communications" sector, and storage and handling is a very small component.

There was also strong interest in reporting on the substance use situation in the agriculture sector. It is a sector whose work force has been under particular stress. Moreover, it is widely recognized as one of the most hazardous industrial sectors. Unfortunately, it is difficult to obtain reliable data on the size of this sector. Alberta Agriculture estimates that approximately half of all farmers work off the farm. Farm family members must also be counted among the farm work force. However, traditional data sources do not capture their farming occupation because their off-farm work is deemed to be their main occupation. The LFS estimates that about 7% of the Alberta labour force have their primary occupations in farming. However, this likely underestimates the farm work force substantially. If we include those who work off the farm but also on the farm, the proportion of the work force engaged in agriculture would rise. The total would likely be in the 13% to 15% range. With the quota sampling system developed, we were reasonably confident of achieving sufficient respondents whose primary or secondary occupation is in farming, to be able to report on that sector.

As noted below in the section on the survey of employers, it is virtually impossible to find a sampling frame for very small businesses. The employers' survey used WCB listings as a sampling frame. To ensure coverage of small business owner-managers, the work force survey identified those respondents who fit this description, and asked them a set of questions related to their role as owner-manager. There are an estimated 120,000 businesses in Alberta that have up to 10 employees, including owner-operated/managed businesses such as farming and some trucking enterprises. While some of these businesses will have common ownership, we were confident that there are a very large number of people whose occupation could be said to be "owner-manager." The sampling plan for the work force would capture that component.

Respondents were selected for inclusion in the survey on the basis of their occupation. Table 1 in Appendix D shows the sample size estimations for relevant sub-populations, as well as the sample that would likely have been achieved were a simple random sample of 2,000 drawn across the entire Alberta work force. The table then shows the degree to which such a simple random sample would cover the sub-populations of interest. Assumptions used in calculating the initial sample size for each sub-population were as follows:[1]

- reporting to a confidence level of 95% (z=1.96, with a two-tailed test);
- the margin of error of 5% (d=.05); and
- the variability of the characteristic of interest (prevalence of substance use/abuse) set in accordance with the findings from the NADS. As noted earlier, Gower's analysis of the NADS found that 9% of the Alberta labour force were heavy drinkers and 8% used other drugs. Since the NADS data does not provide a detailed occupational breakdown for the Alberta work force, we will use the Canadian data, with a slight upward (conservative) adjustment.

Table 3 in Appendix D also outlines these assumptions.

The original Price Waterhouse proposal set an overall sample size of 1,800. If this total sample size had been used and a random sample drawn proportionate to the population, we would have expected to have sufficiently large sub-samples to report by gender, and by certain age, occupation and industry categories. However, several of the sub-samples would have been too small for statistically reliable reporting, while the samples for other categories would have been excessive to our needs. Thus, we sampled disproportionately, taking relatively more respondents from small occupational categories and relatively few from large occupational categories. In particular, we increased the quota for primary production, construction, processing and transportation. Since these occupations are highly correlated with industry, this approach also increased the representation in the appropriate industries. The sub-sample sizes used are shown in Table 1 in the column on the right. We oversampled thee workers, using the initial questions of the interview to establish respondents' occupations and to screen respondents in or out of the interview.

Sampling Frame

The sampling frame used was a purchased listing of residential telephones in Alberta. Of course, not all households include people in the labour force. Moreover, there would have been a risk of bias if we had always interviewed the first person answering the telephone. We therefore used the Trodahl-Carter technique to ensure that all household members who were in the population of interest (the labour force) had an equal chance of being interviewed. Potential respondents who were retired, students, or otherwise not participating in the labour force were thanked and the interview was concluded.

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[1] In theory, this sample size could be reduced when sampling from small populations. The adjustment for a finite population is 16 when the population is 5,000. However, given the overall size of the Alberta work force, even relatively small groups have populations over 5,000.

2.3.2 Survey of Employers

The population of interest for this survey was all employers with operations in Alberta, whether headquartered in Alberta or elsewhere, employing more than 10 people. The rationale for not including very small businesses in this survey was three-fold. First of all, it is very difficult to find an accurate and current listing of all small employers. The turnover among small businesses is relatively high. Secondly, we did not want to add to the paper burden of very small businesses. The owner-managers of these small businesses are heavily occupied with day-to-day operations and have little scope for delegating a questionnaire such as this. Finally, the small business owner-managers are unlikely to have analyzed substance use problems in their workplaces or to have developed response policies. Responses from this set of employers would tend to provide less information than responses from larger employers. Instead, a small set of questions in the telephone survey was geared to small business owner-managers.

In the survey of employers, we considered the most important breakdown for reporting purposes would be employer size. Industry would also be relevant, but, based on our initial research, we anticipated considerable variation within industry, with strong distinctions between relatively small employers and those that are larger. The larger employers were, on average, more likely to have employment policies and practices to respond to substance use. Thus, we were more likely to learn about employers' views of the relative efficacy of various approaches by asking those who have tried something. Table 9 in the profile of the Alberta workplace earlier in this appendix provides a breakdown of the number of employers by size and by industry, based on the WCB listings.

The spokesperson would be the senior official in the organization, although this individual may wish to assign parts of the survey to an EAP, human resources, or industrial relations specialist.

Sample Size

We required a statistically reliable sample for each population/sub-population of interest. The initial sample size determined for each separate sub-population was 385. This figure was based on the following assumptions:

- reporting to a confidence level of 95% (z=1.96, with a two-tailed test);
- the margin of error of 5% (d=.05); and
- the variability of the characteristic of interest set at a maximum 50% (p=.5).

Table 4 in Appendix D shows the sampling estimations for employers, with a breakdown by size. The first column shows the proportion of the employer population falling into that size category. If a simple random sample were drawn, about 73% of the sample would have been very small employers. While these employers are certainly important in the Alberta economy, the scope of their responses on these issues would be limited. On the other hand, we would have had to survey virtually every very large employer to achieve a statistically significant result. In the interest of minimizing the response burden and focusing on employers where there is a likelihood of greater scope in responses, we treated employers as two broad sub-populations, small- to medium-sized (10 to 200 employers), and large to very large (200 employees and over). Finally, it was important to consider likely response rates, so that the achieved sample of responses would provide statistically significant results. Including adjustments for the small size of the total sub-population of large and very large employers as well as compensating for non-response, the total required sample for the employer survey was determined to be 854.

Sampling Frame

AOH&S agreed to assist in this research by providing a sample of employers drawn from WCB listings. We recognized that certain employer categories are under-represented in the WCB listings. Nevertheless, the WCB listing is reasonably representative of Alberta employers, and is particularly useful with respect to employers whose work force are in safety-sensitive positions.

It was critical that AOH&S maintain the confidentiality of the employer lists. It was thus agreed that AOH&S would draw the sample in accordance with agreed criteria, and would prepare two sets of adhesive labels (one for the original questionnaire and one for the follow-up reminder letter). AOH&S provided these labels to AADAC, who provided them to Price Waterhouse. Price Waterhouse did not retain a listing of employers in the sample.

Sample Selection

We drew a sample that over-represented larger employers. In the analysis, we weighted responses so that the over-represented employers would not unduly influence the results. We used 200 employees as the cutoff point between small- and medium-sized employers, and large employers. This corresponds to cutoffs used in other research. Although the definition of large employer varies by industry, employers of less than 200 persons tend to have a less differentiated management structure, and are less likely to have human resources or industrial relations specialists.

2.3.3 Survey of Union Representatives

The survey of union representatives, like the employer survey described above, put more emphasis on the impacts of and responses to substance use problems than on the prevalence of the problem.

The population of interest was union leaders from unions with bargaining units in Alberta. It included unions that are headquartered in Alberta, and that represent only Alberta workers, as well as unions whose membership extends beyond Alberta. In the latter case, the unit of analysis was the Alberta component and the spokesperson was an Alberta representative. The profile of the Alberta work force showed that unionization in Alberta is concentrated in a few industries. The feasibility of reporting by industry is therefore reduced, especially for the industries that are not heavily unionized. In this regard, it is important to consider that this research was undertaken in order to develop and improve programs to respond to substance use problems in the workplace. While the industry is an important variable in shaping a program, our discussions with unions suggest that the size of the union and/or its affiliation with larger union groups is a very important variable in enabling the development of member assistance programs.

Sample Size

Because the population of union leaders is relatively small (approximately 175), we surveyed the entire population. We used a list of unions with Alberta members, which was provided by Alberta Labour Relations Board. The spokesperson was the senior person in the organization, such as the local president. In some instances, it was assumed, this person may have delegated completion of the survey to a person who had been more actively involved in policies and programs to assist members with substance use or other problems.

Stage 3: Analysis and Reporting (September 16, 1991 to January 24, 1992)

This section describes the main statistical techniques used in the data analysis. First of all, it is important to note the nature of the variables in the surveys, distinguishing between **categorical** and **continuous** variables. A continuous variable is one on which respondents or subjects differ in amount or degree. A categorical variable is one on which individuals differ in kind. In this context, the number of drinks a person consumes is a continuous variable. There were relatively few continuous variables in the data. The majority were categorical. Examples of the latter include gender, occupation and industry. The fundamental analyses conducted on categorical variables were tabulations and cross tabulations. Missing data were excluded from the determination of the valid percentages.

We used chi-square analyses to compare actual values to those expected under a null hypothesis. The majority of statistical analyses presented in this report involve the chi-square test of independence. This test is used to determine whether or not two categorical variables are independent of each other in the population. The test compares actual cross-tabulated frequencies for two variables, with those that would be expected under a null hypothesis of independence. Rejection of the null hypothesis suggests that the two variables are related in the population.

Analysis of Variance (ANOVA) was used to compare the industry and occupation groupings on alcohol consumption. ANOVA is a statistical technique that is used to determine if two or more means differ significantly from each other. The technique compares two estimates of population error variance. One estimate is based on the pooled variance within groups (cells); the other estimate is based on the variation between sample means. Under the null hypothesis of no difference between sample means, these estimates should be in rough agreement, and the ratio of between groups variance to within groups variance should be close to unity. However, if this ratio exceeds unity by a large enough margin, support can be inferred for the alternative hypothesis of difference(s) between the sample means.

Correlation analysis was used to determine whether or not two continuous variables are related in the population, for example consumption and problems reported. The most common statistic used in correlational analysis is the **Pearson Product-Moment Correlation Coefficient**, or **r**. This statistic estimates both the degree (low, medium, high) and the direction (positive, negative) of the relationship between two variables in the population. The squared correlation coefficient is often used as a measure of the shared variation between two variables. Although a test of significance is available for **r**, it is affected by sample size. However, as a rule of thumb, correlations of .30 (-.30) or above (below) were considered to have substantive meaning.

A number of analyses were carried out on data that exhibited a pronounced positive skew. That is, most of the respondents indicated alternatives toward the lower end of the relevant scale, while a few indicated alternatives toward the upper end of these scales. In particular, both the incident and problem variables exhibited pronounced positive skews. Many of the regression-based statistical techniques assume a normal distribution. Thus, in order to normalize the distribution of these variables prior to factor analysis, we applied a **logarithmic** transformation to these data by adding one point to each rating, and then taking its base 10 logarithm. This allowed us to eliminate the skew and perform the regular statistical analyses on the problem variables and the incident variables.

The data transformations proceeded the factor analysis we conducted on the problem and incident variables. Factor Analysis (FA) reduces individual variables to underlying dimensions or **factors** based on the pattern of intercorrelations between these variables. Within a set of data, some variables will intercorrelate more highly with each other than with other items; thus, forming relatively independent subgroups or clusters of variables. The aim of FA is to discover such clusters, in order to: 1) summarize pattern of intercorrelations between variables; 2) provide a basis for data reduction; or 3) validate some underlying hypothetical construct. In the present study, FA was applied to the incident variables in order to explore and summarize the pattern of intercorrelations between these variables.

Multiple Regression Analysis (MR) techniques were used in all three surveys. MR is a statistical technique to evaluate the relationship between one dependent variable and several independent variables. The technique involves generating a line of best fit between a continuous dependent variable and several continuous and/or categorical independent variables. The line of best fit is generated by weighting the independent variables so as to minimize the sum of the squared deviations from this line. Conceptually, multiple regression is analogous to correlation, with the exception that multiple regression evaluates the relationship between a (dependent) variable and the weighted sum of several (independent) variables.

As noted, MR can use both continuous and categorical variables. However, it is necessary to convert categorical variables into coded vectors for analysis. The necessity of this operation reflects the fact that, for example, an occupation initially coded as "6" is not twice as difficult or important as one initially coded as "3." The simplest method of coding categorical independent variables for analysis is **dummy coding**. This coding scheme is used to generate vectors such that, for any given vector, membership in a given category or group is coded "1," while non-membership is coded "0." For instance, the categorical variable gender can be dummy-coded so that all males are assigned "1," while all females are assigned "0." As illustrated by this example, the number of coded vectors is always equal to the number of categories of the independent variable minus one (**k**-1).

Several methods are available to select (independent) variables for selection in the regression equation. In **hierarchical** MR, the analyst or researcher determines the order of entry of the variables. The independent variables can be entered one at a time, or in "blocks." By determining the order of entry of the variables, the analyst or researcher is in a position to examine the proportion of variance in the dependent variable attributable to independent variables, after other independent variables have already been accounted for. For example, if the analyst is interested in the relationship between alcohol consumption and occupation, but suspects that both of these variables are related to gender, he/she could assess the contribution of occupation to the prediction of alcohol consumption, after gender had already been entered in the equation.

In **stepwise** MR, the selection of variables reflects statistical, rather than theoretical considerations. At each step in the building of the regression equation, only those variables that add the most to the prediction of the dependent variable are entered or retained in this equation. The selection technique continues until the set of variables that contributes the most to prediction is exhausted. Stepwise regression is often an appropriate strategy when the analyst or researcher has no compelling theoretical basis for assigning priority to the entry of a set of independent variables.

In the present study, a combination of hierarchical and stepwise regression was used to assess the contribution of the "contributing factors" and "background" variables to the prediction of alcohol consumption. The two-level categorical variables used to assess the contributing factors and background variables, such as gender, were dummy-coded, and, together with the relevant continuous variables, were entered into a stepwise MR. The "best" predictors from this analysis were entered into a hierarchical MR. This MR was used to evaluate the contribution to prediction of the dummy-coded vectors representing multi-category background variables, such as marital status.

Weighting

Weighting is a statistical technique that is used to apply weights for obtaining population estimates when a substratum of the population has been over- or undersampled. For instance, although a previous survey indicated that 29.76% of the Alberta work force were managers, and 6.73% were construction workers, 14.45% and 10.76% of the present sample were managers and construction workers, respectively. The managers were, therefore, "weighted up," while the construction workers were "weighted down" to generate population estimates.

The following weights were used in the analyses:

Occupation	Population Percentage	Sample Percentage	Weight
Managerial/professional	29.763	14.449	2.060
Clerical	15.991	14.599	1.095
Sales	9.411	9.517	0.989
Service	13.849	13.702	1.011
Primary	8.493	14.250	0.596
Processing	8.799	8.171	1.077
Construction	6.733	10.762	0.626
Transportation	3.826	6.876	0.556
Materials handling	2.754	6.527	0.422
Other	0.383	1.146	0.334

The final phase of the study involved reporting of the findings. A preliminary report of the findings from the analysis of the surveys was presented to the project advisory committee in early October 1991. The report covered the data collected to date. Although the majority of data to be collected via the surveys had been received, data collection was ongoing. The final report presents complete findings of the research based on all data collected. Response rates to the surveys conducted are illustrated in the following table.

Survey	Sample Size	Responses	Response Rate
Work force	2,000	2,007	>100%
Employer	849	325	38%
Union	228	43	19%

A demographic breakdown of the sample obtained in each of the surveys is outlined below.

Work Force Survey

A detailed breakdown of the occupations of the respondents to the work force survey is illustrated in the table below.

Occupations of Work Force Survey Respondents
(percentage of respondents)
n=2,007

Occupation	Percentage of Respondents
Manager/professional	29.8
Clerical	16.0
Service	13.9
Sales	9.4
Processing	8.8
Primary	8.5
Construction	6.7
Transportation	3.8
Materials handling	2.8
Other	0.4

The table below presents a breakdown of the work force respondents by industry.

Industries of Work Force Survey Respondents
(percentage of respondents)
n=2,002

Industry	Percentage of Respondents
Other	15.2
Wholesale / retail trade	10.9
Health care	9.1
Manufacturing	6.8
Public administration	6.7
Agriculture	6.6
Upstream oil and gas	6.5
Finance	6.4
Other services	6.4
Construction	6.3
Education	5.6
Transportation	4.3
Utilities	2.7
Telecommunications	2.5
Social services	2.3
Forestry / mining	1.6

The following table shows a breakdown of the work force respondents in terms of occupation by industry.

Work Force Survey Respondents by Occupation by Industry
(percentage of respondents in each industry)

	Manager	Clerical	Sales	Service	Primary	Processing	Construction	Transport	Materials	Other
Agriculture	10.8	4.1	1.5	2.3	75.8	2.4	.9	.8	1.3	0
Forestry / mining	6.4	10.3	3.1	6.3	24.2	30.3	5.9	6.9	6.6	0
Construction	13.0	7.8	.8	3.2	.5	1.7	69.3	1.8	2.0	0
Telecom	32.5	25.9	7.8	12.0	1.2	17.0	1.2	0	2.5	0
Wholesale / retail	13.2	17.1	50.4	8.8	.5	3.5	.3	1.8	4.5	0
Education	62.3	27.3	.9	6.3	.5	0	1.7	.5	0	.6
Social serv.	22.5	26.3	2.2	46.3	0	0	2.7	0	0	0
Public admin.	39.7	30.8	1.5	15.0	.4	2.4	5.1	2.1	2.5	.5
Upstream oil and gas	28.5	15.2	1.5	5.4	22.5	16.6	4.3	3.4	2.3	.3
Manufacturing	15.2	7.3	5.8	3.7	2.2	50.1	4.6	2.1	8.7	.2
Transportation	16.7	10.1	2.3	9.3	0	2.5	3.6	54.6	.5	.4
Utilities	50.0	4.1	0	7.5	4.4	20.1	4.7	2.1	7.1	0
Finance	40.2	36.7	13.9	8.7	0	0	0	0	.3	.3
Health care	53.0	13.8	2.7	22.7	.7	5.3	1.7	0	.2	0
Other services	30.6	11.1	7.7	37.9	.9	5.9	1.5	2.2	2.0	.3
Other	31.2	13.0	7.5	23.0	7.1	7.5	3.5	1.8	3.9	1.5
Total	29.6	16.0	9.4	13.9	8.5	8.8	6.8	3.8	2.7	0.6

The following tables show the breakdown of the respondents to the work force survey by size of employer, employment status, age, marital status, education and gender.

Sizes of Employers of Work Force Respondents
(percentage of respondents)
n=1,978

Size of Employer	Percentage of Respondents
1 to 4 employees	14.1
5 to 9 employees	8.8
10 to 49 employees	17.3
50 to 99 employees	5.6
100 or more employees	54.2

Employment Status of Work Force Respondents
(percentage of respondents)
n=2,007

Employment Status	Percentage of Respondents
Working full time	79.2
Working part time	18.6
Laid off (temporarily)	0.9
On workers' compensation or disability	0.3
Unemployed but looking for work	1.0

Age of Work Force Respondents
(percentage of respondents)
n=2,003

Age	Percentage of Respondents
15 to 24 years	15.7
25 to 34 years	28.7
35 to 44 years	32.1
45 to 64 years	22.0
65 and over	1.6

Marital Status of Work Force Respondents
(percentage of respondents)
n=2,007

Marital Status	Percentage of Respondents
Married	62.5
Separated	3.6
Divorced	8.1
Widowed	1.4
Never married	24.5

Education of Work Force Respondents
(percentage of respondents)
n=2,001

Education	Percentage of Respondents
Not high school	15.5
High school	24.1
Some college	18.5
Completed trade school	12.2
Completed college	10.5
One or more degree(s)	19.2

Gender of Work Force Respondents
(percentage of respondents)
n=1,987

Gender	Percentage of Respondents
Male	54.8
Female	45.2

Employer Survey

A total of 325 companies responded to the employer survey. A breakdown of these respondents by main occupation, industry and size is presented in the tables below.

Main Occupation of Employer Respondents
(percentage of respondents)
n=301

Main Occupation	Percentage of Respondents
Service	20.3
Professional	18.6
Sales	13.3
Processing	13.0
Construction	8.6
Primary	6.6
Transportation	5.0
Clerical	4.7
Materials handling	4.7
Other	4.0
Manager	1.3

Industries of Employer Respondents
(percentage of respondents)
n=310

Industry	**Percentage of Respondents**
Manufacturing	15.2
Wholesale / retail	15.2
Other	9.7
Health care	9.4
Construction	8.1
Other services	8.1
Upstream oil and gas	7.4
Social services	7.4
Education	6.1
Transportation	5.8
Primary	3.3
Telecommunications and utilities	2.5
Finance	1.9

Size of Employer Respondents
(percentage of respondents)
n=320

Size of Employer	**Percentage of Respondents**
less than 10 employees	3.1
10 to 49 employees	32.5
50 to 199 employees	18.4
200 to 499 employees	20.9
500 or more employees	25.0

Union Survey

Only 40 unions responded to the union survey. Because of this low response rate the union response categories were collapsed to ensure sample sizes of significance. The following three tables illustrate the occupations, industries and sizes of the responding unions.

Occupations of Union Respondents
(percentage of respondents)
n=32

Occupation[2]	Percentage of Respondents
White-collar	65.6
Blue-collar	15.6
Other	18.8

Main Industries of Union Respondents
(percentage of respondents)
n=33

Main Industry	Percentage of Respondents
Service	75.8
Transportation	12.1
Construction	9.1
Primary	3.0

Size of Union Respondents
(percentage of respondents)
n=36

Number of Members	Percentage of Respondents
0 to 100	11.1
101 to 200	19.5
201 to 500	13.8
501 to 1,000	13.9
1,001 to 2,500	19.5
2,501 to 10,000	16.6
over 10,000	5.6

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[2] Blue-collar workers are defined as those in the following occupations: primary, processing, construction, transportation, and materials handling. White-collar workers are defined as those in the following occupations: managerial/professional, clerical, sales, and service.

APPENDIX D

SAMPLING ESTIMATIONS

TABLE 1
SAMPLING ESTIMATIONS
ALBERTA WORKFORCE

SUB-POPULATION	PERCENT POPULATION	SUB-POPULATION VARIABILITY	REQUIRED SUB-SAMPLE	SUB-SAMPLE (SRS n=1800)	OVER (UNDER) SAMPLE NEEDED	RECOMMENDED SAMPLE SIZE
GENDER						
Male	56%	15%	196	1001	(805)	
Female	44%	5%	73	799	(726)	
OCCUPATION						
Managerial	30%	10%	138	540	(402)	200
Clerical	16%	10%	138	288	(150)	200
Sales	10%	10%	138	180	(42)	200
Service	14%	10%	138	252	(114)	200
Primary	9%	20%	246	162	84	350
Processing	8%	20%	246	144	102	250
Construction	7%	20%	246	126	120	300
Transport/Handling	7%	20%	246	126	120	300
Total						2000
AGE						
15–24	19%	20%	246	342	(96)	
25–34	30%	15%	196	540	(344)	
35–44	27%	15%	196	486	(290)	
45–54	15%	10%	138	270	(132)	
55+	10%	10%	138	180	(42)	
GEOGRAPHY						
South (810)	8%	N/A	N/A	144	N/A	
East Central (820)	4%	N/A	N/A	72	N/A	
Calgary (830)	33%	N/A	N/A	594	N/A	
West (840)	4%	N/A	N/A	72	N/A	
Central (850)	6%	N/A	N/A	108	N/A	
Edmonton (860)	35%	N/A	N/A	630	N/A	
Northwest (870)	5%	N/A	N/A	90	N/A	
Northeast (880)	6%	N/A	N/A	108	N/A	
INDUSTRY						
Agriculture	6.9%	0.2	246	124	122	
Other primary upstream O&G	5.4%	0.2	246	96	150	
Manufacturing	8.0%	0.2	246	144	101	
Construction	6.8%	0.2	246	122	123	
Trade/commerce	17.6%	0.1	138	317	(179)	
Transportation/utilities	7.7%	0.2	246	139	107	
Finance	5.1%	0.1	138	92	46	
Services	34.6%	0.1	138	622	(484)	
Public Administration	7.5%	0.1	138	135	3	
Other	0.4%	N/A	N/A	N/A	N/A	

TABLE 2

WORKFORCE BREAKDOWN BY INDUSTRY

INDUSTRY	TOTAL	SECTOR	PERCENT	
OTHER PRIMARY		144.8	14.6%	
Forestry	2.3			0.2%
Upstream Oil & Gas	139.8			14.1%
Coal	2.7			0.3%
MANUFACTURING		73.9	7.5%	
Food Processing	27.3			2.8%
Pulp/Paper/Wood	4.9			0.5%
Print/Publishing	9.6			1.0%
Chem./O&G Processing	8.3			0.8%
Durable Goods	23.8			2.4%
CONSTRUCTION	42.6	42.6	4.3%	4.3%
TRANS./COMM./UTILITIES		95.4	9.6%	
Transportation	50.5			5.1%
Storage	1.6			0.2%
Communication	23			2.3%
Utilities	20.3			2.0%
TRADE		166.2	16.8%	
Wholesale	49.3			5.0%
Retail	116.9			11.8%
FINANCE		55.2	5.6%	
Financial Institutions	29.7			3.0%
Insurance/Real Estate	25.5			2.6%
SERVICES		342.4	34.6%	
Education	92.8			9.4%
Health/Social Services	101.8			10.3%
Recreation	13.1			1.3%
Bus Services	48.4			4.9%
Hotel/Restaurant	62.5			6.3%
Other	23.8			2.4%
PUBLIC ADMIN.		70.5	7.1%	
Federal	16.8			1.7%
Provincial	32.2			3.2%
Local	21.5			2.2%
TOTAL	991	991		

Source: STC: SEPH

TABLE 3

ASSUMPTIONS
FOR
SAMPLING ESTIMATIONS FOR THE ALBERTA WORKFORCE

Confidence level		0.95	z=	1.96
margin of error	d=	0.05		
variability	p=	0.5		
initial sample size	n=	384.16		

TABLE 4

SAMPLING ESTIMATIONS ALBERTA EMPLOYERS

SUB-POPULATION	PERCENT POPULATION	SUB-POPULATION VARIABILITY	REQUIRED SUB-SAMPLE	ADJUST FOR SMALL POPULATION	FINAL ESTIMATE
very small (<10)	72.9%	N/A	N/A		
small (10–49)	20.8%	0.5	384	N/A	549
medium (50–199)	5.0%	0.5	384	N/A	
large (200–499)	0.8%	0.5	384	169	305
very large (500+)	0.5%	0.5	384	122	
TOTAL					854

APPENDIX E

SURVEYS

WORKFORCE SURVEY

Hello, my name is ....I'm calling from Price Waterhouse. We are conducting an important Alberta-wide study about workplace health issues. We are not selling or soliciting anything. This is a research project. We are doing this research for the Alberta Alcohol and Drug Abuse Commission (AADAC). The reason for this survey is to understand how alcohol and drug use affect the workplace and the work teams in Alberta. The interview will take about 20 minutes.

We chose your telephone number at random. We'd also like to pick one person in your household at random to be interviewed. To do this, would you please tell me, including yourself, how many people 15 years of age or older live in your home? How many of these people have a job or are looking for a job (including people who may be temporarily laid off or on leave or workers compensation)?

[ONLY PEOPLE WHO ARE IN THE WORKFORCE SHOULD BE INCLUDED]

SELECT INDIVIDUAL RESPONDENT. REPEAT INTRODUCTION.

You have been randomly selected to participate in this survey. Your participation is completely voluntary. Your answers will **remain confidential to our firm.** We will report only a summary of our findings. No individuals can or will be identified.

Your assistance in this study is very important. We want to be sure we get the views of a real cross-section of Albertans. The results will be used to help plan programs to assist people with substance use problems and to help prevent those problems in the first place.

IF INTERVIEWEE REMAINS SKEPTICAL OF THE VALIDITY OF THE RESEARCH AND ASKS TO TALK TO SOMEONE RESPONSIBLE FOR THE PROJECT, REFER TO DENISE LOEWEN AT PRICE WATERHOUSE EDMONTON (403-493-8200) OR NORM STEIN AT PW CALGARY (403-267-1200). IF THE PERSON REMAINS SKEPTICAL, REFER TO ED SAWKA OR GARRY VINJE IN AADAC.

To call AADAC without charge, interviewees should be directed to call the provincial government's regional information telephone inquiry number (also known as the R.I.T.E. system) listed in their telephone directory under "Government of Alberta". They should ask the provincial operator to connect them to 427-4275 Edmonton. Individuals in the Edmonton area, or living in communities not served by the RITE system, should call AADAC direct at 427-4275.

ARRANGE TIME TO CALL BACK IF APPROPRIATE

SCREENING QUESTIONS

1. Are you currently...

1. Working full time
2. Working part time
3. Laid off (temporarily)
4. On workers' compensation or disability
5. Unemployed but looking for work
6. Never worked
7. Retired
8. Student not working
9. A homemaker (not paid)
10. Not working & not looking for work

1.1 [FOR RESPONSES 3,4,5] Have you been off work for more than 4 weeks?

1. Yes --> SKIP ALL QUESTION ABOUT LAST 4 WEEKS
2. No

[RESPONSES 6-10 SHOULD NOT BE IN THE SAMPLE: THANK AND CLOSE; SEEK ANOTHER RESPONDENT]

2. Do you run your own business?

1. Yes [DEFINE THIS SET OF RESPONDENTS AS OWNERS]
2. No

3. What is your main or primary occupation? [DO NOT READ]

Manager (plans/organizes/directs/controls functions of a department/division/program/regional office/other unit)
Professional (teacher, lawyer, doctor, nurse, engineer, dentist, accountant etc)
Clerical/office worker
Sales (selling/buying commodities, selling services, wholesale and retail businesses)
Service (providing protection, catering, accommodation, assistance, funeral service, hair styling, beauty treatments, personal services, washing or cleaning, operating elevators, minor maintenance repairs, etc.)
Farmer (wheat/grain grower, dairy, rancher etc)
Other primary occupations (upstream oil and gas, fishing/hunting/trapping and related occupations; forestry and logging operations; mining/quarrying.)
Processing (refining, mixing, compounding, chemically treating, conditioning, or otherwise treating materials for direct use; or to produce semi-finished materials for further machining or fabricating; or to produce finished products such as bricks, tiles, processed food, newsprint, lumber, plywood and cloth)
Construction (erecting, repairing and maintaining buildings and other works)
Transportation equipment operating (truck driver, bus driver, airline pilot etc)
Materials handling (occupations not elsewhere classified concerned with moving, lifting, loading, and packaging materials and products)
Other

[QUOTA FOR RESPONSES BY OCCUPATIONAL CATEGORY]

[RESPONSES 3,4,5 IN Q1 SKIP TO NEXT SECTION]

4. How many people report to you, directly or indirectly? ______

5. Do you hold a second job?

1. Yes
2. No SKIP TO 7

6. What occupation is your second job? [LIST FROM ABOVE; DO NOT READ]

7. To help us understand your answers, can you tell me whether you took a vacation in the last 4 weeks?

1. Yes
2. No SKIP TO NEXT SECTION

8. In the last week?

1. Yes
2. No

WORK DESIGN AND CORPORATE CULTURE

To begin with I'd like to ask some questions about the availability of alcohol or drugs in or near your worksite.

1. Please indicate whether each of the following statements apply to your workplace: [RANDOMIZE]

People who work here go for a drink together at lunch
People who work here go for a drink together after work
People who work here socialize with each other
Alcohol is served at work-related functions away from the workplace
Alcohol is served at the workplace, BUT ONLY on special occasions
We serve alcohol at work [eg restaurant, bar, brewery]
Alcohol is permitted on the premises at work
Alcohol is available near the workplace
Street drugs are available near the workplace

Yes
No

2. How often does this occur? [FOLLOW-UP ON UP TO THREE POSITIVES AT RANDOM]

1. Everyday?
2. 4-6 times a week?
3. 2-3 times a week?
4. Once a week?
5. 1-3 times a month?
6. Less than once a month?

3. Do you agree with these statements?

It's okay to drink on the job because everyone does it
It's okay to drink on the job when the supervisor knows
It's okay to drink when you are entertaining a client

- Yes
- No

Opinions vary about whether alcohol and drug use affect people at work. I'd like to get your opinion on alcohol and drug use in the workplace.

4. In your opinion, how serious a problem is employee alcohol use in your workplace?

1. Extremely serious
2. Moderately serious
3. Not very serious
4. Don't know

5. In your opinion, how serious a problem is employee drug use in your workplace?

1. Extremely serious
2. Moderately serious
3. Not very serious
4. Don't know

OWN SUBSTANCE USE

Now, I'd like to ask you a few questions about your own alcohol and/or drug use.

1. In the last 12 months, did you smoke tobacco [cigarettes, a pipe or cigars]?

1. Yes
2. No

2. During the past 12 months have you had a drink of any alcoholic beverage (beer, wine, wine cooler, or hard liquor)?

1. Yes [DEFINE RESPONDENT AS CURRENT DRINKER]
2. No SKIP TO 14

3. During the past 12 months how often on average did you drink alcoholic beverages? Did you drink . . .

1. Everyday?
2. 4-6 times a week?
3. 2-3 times a week?
4. Once a week?
5. 1-3 times a month?
6. Less than once a month?

4. In the last 12 months, on the days when you drank how many drinks did you usually have? ___ ___ ___ DRINKS

5. How many times in the past 12 months have you had FIVE or more drinks on one occasion? ___ ___ ___ _____TIMES

8. During the past 4 WEEKS, how often did you drink...

With friends or family?
With co-workers, including supervisors?
By yourself or when others were not drinking?

[COMPUTER TO GENERATE FREQUENCY RESPONSE OPTIONS BASED ON ANSWER TO 4 ABOVE, ALSO ADDING A NEVER CATEGORY]

9. In the past 4 weeks, about how many times, if any, did you have a drink during the time you were at work, including lunch and other breaks?

1. None
2. Don't know
3. Once a week
4. 2-3 times a week
5. 4+ times a week

10. [FOR CURRENT DRINKERS ONLY; OTHERS SKIP TO 14] Alcohol use can have different effects on people's lives. Please indicate which of the following have happened to you in the last 12 months. Have you . . . [RANDOMIZE]

Had a traffic violation related to alcohol use
Been able to drink more than others
Had problems with family/friends due to alcohol
Had problems with co-workers due to alcohol
Tried to cut down your alcohol use
Been annoyed by people telling you to cut down your alcohol use
Felt guilty about your alcohol use
Used alcohol as an "eye-opener"
Been unable to remember the next day what happened after drinking alcohol
Had legal or financial problems due to alcohol
Had problems on the job due to your own alcohol use

Yes No

11. When was the last time you . . .[COMPUTER TO INSERT UP TO 2 POSITIVE ITEMS FROM ABOVE AT RANDOM]

1. Right now/currently/less than a month ago
2. One month to one year ago
3. More than a year ago

12. In the past 4 weeks, have you been invited to have a drink by ...?

A customer or client?
A co-worker?
Supervisor/manager? [DO NOT ASK OF OWNER-MANAGERS]
A supplier?

13. How comfortable are you talking about drinking?

1. Very comfortable
2. Comfortable
3. Not very comfortable

Now I'd like to ask you a few questions about drug use.

14. Have you EVER used any of the following?

Marijuana, hash
Cocaine, crack
LSD, PCP or other hallucinogens
Heroin
Other street drugs

1. Yes
2. No SKIP TO 18

[BASED ON RESPONSE TO 14, COMPUTER WILL AUTOMATICALLY FOLLOW WITH 15, 16, 17 FOR ONE DRUG CATEGORY]

15. Have you used [INSERT FROM 14] in the last year?

1. yes [DEFINE RESPONDENT AS CURRENT USER OF ILLICIT DRUGS]
2. no [SKIP TO 18]

16. In the last twelve months, how often have you used [INSERT FROM 14]?

1. Less than once a month
2. 1-3 times a month/few times a month
3. Once a week
4. 2-3 times a week/few times a week
5. 4-6 times a week/almost every day
6. Daily/more than once a day

17. In the last 12 months, have you used [INSERT FROM 14] [alone, with co-workers, with a supervisor, DO NOT ASK OF OWNERS/MANAGERS] while at work?

1. yes
2. no

18. In the past 4 weeks, have you taken any [over the counter, prescription] medications for a cough, cold, sinus problems, or allergies? (Do not count products such as ordinary aspirin)

1. Yes
2. No SKIP TO 21

19. On about how many days in the past 4 weeks did you take any medications for a cough, cold, sinus problems, or allergies?

_______ days

20. **On about how many days in the past 4 weeks did you take any medications for a cough, cold, sinus problems, or allergies while at work or in the 3 hour period before you went to work?**

_______ days

21. **In the past 4 weeks have you taken any tranquilizers, sleeping pills, or painkillers?**

1. Yes
2. No SKIP TO 24

22. **On about how many days in the past 4 weeks did you take any tranquilizers, sleeping pills, or painkillers?**

_______ days

23. **On about how many days in the past 4 weeks did you take any tranquilizers, sleeping pills, or painkillers while at work or in the 3 hour period before you went to work?**

_______ days

24. **In the past 4 weeks have you taken any diet pills or pills to keep you awake [stimulants]?**

1. Yes
2. No SKIP TO 27

25. **On about how many days in the past 4 weeks did you take any diet pills or stimulants?**

_______ days

26. **On about how many days in the past 4 weeks did you take any diet pills or stimulants while at work or in the 3 hour period before you went to work?**

_______ days

27. [FOR CURRENT ILLICIT DRUG USERS ONLY; OTHERS SKIP TO NEXT SECTION] Drug use can have different effects on people's lives. In the last 12 months, have you... [RANDOMIZE]

Had a traffic violation related to your drug use
Had problems with family/friends due to your drug use
Had problems with co-workers due to drugs
Tried to cut down your drug use
Been annoyed by people telling you to cut down your drug use
Felt guilty about your drug use
Used drugs as an "eye-opener"
Been unable to remember the next day what happened after taking drugs
Had legal or financial problems due to drugs
Had problems at work due to your drug use
Been fired due to use of drugs on the job

Yes
No

28. How comfortable are you talking about drug use?

1. Very comfortable
2. Comfortable
3. Not very comfortable

SUBSTANCE USE AMONG CO-WORKERS/SUBORDINATES

1. Right now, do you personally know someone you work with who has an alcohol problem?

1. Yes
2. No

2. Right now, do you personally know someone you work with who has a drug problem?

1. Yes
2. No

CONTRIBUTING FACTORS

I'd like to ask you a bit more about your current job.

1. **Do you work . . .**

Shiftwork --> what shift do you usually work? --> How long is your usual shift? __
days
evenings
nights
rotation
split shift

Compressed work week --> how long is your usual workday? _______

Long work hours, including overtime
--> how long is your usual work day?
--> during the last 4 weeks, how many times were you on duty more than [##] hours at a time?

[does your work involve] Boredom
Repetitive tasks
On-call work --> how often were you called back to work in the last four weeks?
Worksite remote from home
Travelling on the job
Entertaining or being entertained by clients, suppliers or other business contacts

1. Yes
2. No

2. **[FOLLOW-UP ON 3 POSITIVES, FOR THOSE WHO ARE CURRENT USERS] Is this a factor in your [alcohol, drug] use?**

   1. Yes
   2. No
   3. Don't know

PERCEIVED JOB STRESS

Now, I have some questions about stress on the job.

1. **How stressful do you consider your job?**

   not at all stressful -- go to 3
   somewhat stressful -- go to 3
   extremely stressful

2. **What makes your job stresful? [DO NOT READ; CHECK TWO AT MOST]**

   too much responsibility for the work of others
   mistakes could be costly
   not enough help or equipment to get the job done
   heavy workload interferes with how well work gets done
   have to do things that are against your better judgement
   unable to influence your immediate supervisor's decisions and actions that affect you
   unclear expectations of what is a good job
   need to satisfy too many people
   job tends to interfere with family life
   too much overtime
   trapped in a job you don't like but can't get out of
   unsafe

3. **If, for any reason, you did not do your job well, what are the chances of . . .**

   Physically injuring yourself or a co-worker
   Physically injuring someone outside the organization [eg. client, patient, general public]
   Damaging/polluting the environment
   Damaging the company's equipment or property
   Hurting the reputation of the organization
   The organization losing a lot of money

   . No chance
   . Very slight chance
   . Moderate chance
   . Quite a good chance

EFFECTS OF [ALCOHOL, DRUG] ON THE JOB

Now we'd like to ask you a few questions about the effects of alcohol or drugs on the job. This is really the central part of the questionnaire. I realize that some of these points may not be applicable to you, but it is important that we ask everyone, just in case.

1. **Over the last 4 WEEKS, to the best of your knowledge, have any of the following substance use incidents occurred to anyone in your work group? Have you or anyone... (NOTE: AN INCIDENT IS DEFINED AS ONE SINGLE OCCURRENCE.)**

Arrived at least an hour late for work due to substance use
Been caught using alcohol on the job
Been caught using drugs on the job
Who was on-call arrived at work impaired
Been assigned other duties for the day due to being drunk or high
Been reassigned for a longer period due to substance use problems
Made a lot of mistakes due to being drunk or high
Worked very slowly due to impairment
Missed a day of work due to substance use --> IF NO SKIP NEXT FIVE
Been sent home from work due to being drunk or high
Been sent home from work due to a hangover
Taken extended leave due to a substance use problem
Taken leave to undergo treatment for a substance use problem
Been suspended due to a substance use problem
Had conflict with co-workers/supervisor due to a substance use problem
Been dismissed due to a substance use problem
Been injured on the job due to impairment
Who was drunk or high on the job had an accident that resulted in injury to a co-worker
Who was drunk or high on the job had an accident that resulted in injury to someone outside the organization
Who was drunk or high on the job had an accident that resulted in damage to equipment or property
With substance use problems been caught stealing company or client property
With substance use problems been suspected of sabotage [equipment, products, process, software etc]

Yes	don't know
No, never	not applicable

2. **[FOLLOW-UP ON UP TO 3 POSITIVES] How often did this happen?**

1. once [in the four weeks]
2. about twice or three times [in the four weeks]
3. about once a week
4. about twice a week
5. almost daily

6. don't know

3. [FOR CURRENT ALCOHOL OR DRUG USERS ONLY] Did any of this happen to you?

yes
no --> SKIP TO QUESTION 5

4. Which ones? [LIST FROM 1 ABOVE; DO NOT READ]

5. [FOR MANAGERS AND OWNERS, FOLLOW-UP ON THE SAME POSITIVES] What is the cost or impact on your firm of such an incident? [DO NOT READ; CHECK ALL THAT APPLY]

Value of the person's wages/salary
Disruption of the work team
Reduced productivity
Out of pocket expenses
Other
Don't know

RESPONSE OPTIONS

Now, I'd like to ask you some questions about dealing with alcohol or drug problems on the job.

1. What would you do if someone you worked closely with an [alcohol, drug] problem? [DO NOT READ]

Avoid working with the person
Help the person by doing some of his/her work
Give the person advice on dealing with his/her drug problem
Help the person avoid getting caught by the supervisor [DO NOT ASK OF MANAGERS]
Report the person to the supervisor [DO NOT ASK OF MANAGERS]
Suggest the person get professional help
Not interfere/do nothing

2. If you felt that you or a co-worker had a drug or alcohol problem would you know where to go for help?

1. yes
2. no SKIP TO 4

3. **Which services or help would you suggest? [DO NOT READ]**

Family member, friend
AA (Alcoholics Anonymous), Al-Anon, support group, Narcotics Anonymous
EAP / MAP
Psychologist, social worker
Minister, priest, rabbi
Doctor, nurse, psychiatrist
Hospital, emergency department, Psychiatric hospital
AADAC
Alcohol/drug addiction agency, Detoxification (detox) centre, half-way house
Other

4. **Is there an Employee Assistance Program (EAP) or a Member Assistance Program (MAP) at your workplace?**

1. Yes
2. No - SKIP TO 7
3. Don't know

5. **Do you feel that the EAP is a good way to deal with problems like alcohol and drug use?**

1. Yes
2. No
3. Don't know

7. **[FOR MANAGERS, OWNER-MANAGERS ONLY; OTHERS SKIP TO 12] Now I'd like to discuss [the, your] response [by your employer] when an employee has an ON-GOING substance problem. What would be your response? Would you ...**

Use progressive discipline: warnings, suspension and termination
Refer for a drug test
Refer for professional counselling
Refer for counselling by supervisor
Reassign to a less sensitive area
Not interfere
Fire the person as quickly as possible

. Yes
. No

8. **Does your organization have a formal smoking policy?**

1. Yes
2. No
3. Don't know

10. **Does your organization have any written policies on alcohol or drug use in the workplace?**

- Yes
- No SKIP TO 12
- Don't know

11. **Which of the following are included in your organization's policies or procedures regarding substance use in the workplace?** [CHECK ALL THAT APPLY]

- Prohibition of substance use across the organization
- Training for supervisors in recognizing substance use problems
- Training for supervisors in helping employees recognize their substance use problem
- Training for all employees related to preventing substance use problems
- Provision of sick leave for employees undergoing treatment
- Provision to reassign employees facing substance use problems
- Security procedures to prevent the presence of drugs in the workplace
- Progressive discipline to deal with substance use problems in the workplace
- Information sessions for all employees on the organization's substance use policies
- Promotion of workplace wellness
- Drug testing

Yes
No
Don't know

Now, I have a few questions on information you might have received.

12. **In the past twelve months, have you received any information at work about the effects of alcohol or other drug use?**

- Yes
- No SKIP TO 14
- Don't know SKIP TO 14

13. **Which of the following best describes the type of information you received?** [CHECK ONE]

Informal discussion sessions
Presentation by medical officer or drug education coordinators
Personal counselling by professionals
Personal counselling by superiors
Videotapes/films about alcohol/drug use
Special reading materials, brochures, pamphlets

14. Should more be done to deal with substance use in the workforce?

. Yes
. No SKIP TO BACKGROUND SECTION

15. Who should be involved in dealing with substance use in the workforce? [DO NOT READ, CHECK ALL THAT APPLY]

Employers
Unions
Workers/employees
Worker/employee committees
Community groups
Industry associations
Medical/ health care professionals
Government

16. Who should take the lead role? [LIST FROM ABOVE; DO NOT READ]

17. What should be done to deal with substance use in the workforce? [DO NOT READ]

more education to workers/managers/supervisor
more treatment centres/better access to treatment
promote substance-free lifestyles
more laws against substance use
make the workplace more responsive to people's needs [eg flex time, less shift work]
other

BACKGROUND

Before we finish, I'd just like to get a bit of background about you and the kind of work you do.

1. **Do you work . . .**

    - All year
    - Part of the year

2. **Have you been off work in the last 12 months due to a work-related injury or a work related health problem?**

    - Yes
    - No

3. **[FOR NON MANAGERS] Are you a union member?**

4. **[FOR MANAGERS] Does your company or business have a union(s) or a collective bargaining unit(s)?**

    - Yes
    - No

5. **What type of business is your company in?** [DO NOT READ]

    1 Agriculture
    2 Upstream oil and gas
    3 Forestry, mining
    4 Manufacturing and processing (including oil and gas processing)
    5 Construction
    6 Transportation
    7 Telephones, telecommunications, broadcasting
    8 Utilities
    9 Wholesale and retail trade
    10 Finance, insurance, real estate
    11 Education (including schools and universities)
    12 Hospitals, health care
    13 Social services
    14 Other services
    15 Public administration/government
    16 Other (PLEASE SPECIFY______________)

6. How many people work are there in your immediate work group?

_______ PEOPLE

7. How many people work for your company/organization in Alberta?

- 1-4 employees
- 5-9 employees
- 10-49 employees
- 50-99 employees
- 100+ employees

don't know

8. How old are you? Are you . . .

- 15-24 years
- 25-34 years
- 35-44 years
- 45-64 years
- 65+ years

9. Are you . . .

- Married, [INCLUDING COMMON LAW]
- Separated
- Divorced
- Widowed
- Never married

10. Which of the following best describes your education?

- Did not graduate from high school
- High school graduation or equivalent
- Some college, technical school or university
- Completed technical school/trade school
- Completed college
- One or more university degrees

11. [NOT OWNERS] How long have you been working for your current employer? [DO NOT READ]

- Less than one year
- 1 year or more but less than 5 years
- 5 years or more but less than 10 years
- 10 years or more but less than 25 years
- more than 25 years

12. **[OWNERS ONLY] How long have you been running your own business?**

- Less than one year
- 1 year or more but less than 5 years
- 5 years or more but less than 10 years
- 10 years or more but less than 25 years
- more than 25 years

13. **What is your household income? [gross income]**

- Under $10,000
- $10,000 to $19,999
- $20,000 to $34,999
- $35,000 to $49,999
- $50,000 to $99,999
- $100,000 or over

14. **INTERVIEWER RECORD**

- Male interviewee
- Female interviewee

SURVEY OF ALBERTA EMPLOYERS

The person responsible for overall human resource management is probably in the best position to respond to this survey.

Purpose of this survey...

Price Waterhouse is conducting surveys of employers, unions and the general workforce in Alberta, for the Alberta Alcohol and Drug Abuse Commission (AADAC). The primary purpose of the survey is to assess the impact of alcohol and/or other drug use on the Alberta workplace. The results will be used to help design policies and programs to deal with problems experienced by workers, employers and unions with respect to substance use in the workplace.

Confidentiality...

All information about your business will be kept completely confidential by Price Waterhouse. We will report only summary information. No information on individual responses will be reported. Please do not put your name or the name of your organization on the questionnaire.

Instructions...

The questionnaire is divided into several sections. Please read the questions carefully. Most of the questions can be answered by simply circling the number that corresponds to the response you select or by checking a box.

For assistance...

If you have any questions about the survey, or if the instructions are not clear, please call Price Waterhouse collect at (403)493-8200 and ask for Denise Loewen or at (403)267-1200 and ask for Norm Stein. You can also fax your question to (403)428-8069, attention Denise Loewen.

You can also call Ed Sawka or Garry Vinje at AADAC if you have questions about the survey. They can be reached at no charge by calling the provincial government's regional information telephone inquiry number (also known as the R.I.T.E. system) listed in your telephone directory under "Government of Alberta". Simply ask the provincial operator to connect you to 427-4275. If you live in the Edmonton area, or in a community not served by the R.I.T.E. system, you should call AADAC direct at 427-4275.

Upon completion...

Once you have completed the questionnaire, please return it using the enclosed pre-addressed, stamped envelope.

Deadline...

Please return the questionnaire by Friday August 16, 1991.

THANK YOU FOR YOUR PARTICIPATION!

BACKGROUND

This section asks for some background information on your organization. It will help us understand the different approaches taken by Alberta employers in handling substance use problems.

1. **Which of the following best describes the primary business of your organization? [PLEASE CIRCLE THE NUMBER WHICH BEST CORRESPONDS TO YOUR ANSWER]**

   1. *agriculture*
   2. *upstream oil and gas, including exploration, drilling, servicing, well operations and gas plants*
   3. *forestry*
   4. *mining, including oil sands*
   5. *manufacturing and processing, including saw mills, pulp, paper, oil and gas and food processing*
   6. *construction*
   7. *transportation, including rail, truck, bus, air, water and pipeline operations*
   8. *telecommunications, broadcasting*
   9. *utilities, including water and electricity*
   10. *wholesale and retail trade*
   11. *finance, insurance, real estate*
   12. *education (including schools and universities)*
   13. *hospitals, health care*
   14. *social services*
   15. *other serviccs*
   16. *public administration*
   17. *other (PLEASE SPECIFY ____________________________)*

2. **Where is the headquarters of your organization? [CIRCLE ONE ONLY]**

   1. *in Alberta*
   2. *outside Alberta, but within Canada*
   3. *outside Canada*

3. **How many people does your organization currently employ in Alberta? [CIRCLE ONE ONLY]**

   1. *less than 10 employees*
   2. *10 to 49 employees*
   3. *50-199 employees*
   4. *200 - 499 employees*
   5. *500+ employees*

4. **Approximately what percentage of your Alberta workforce are other than permanent full-time employees?** _____%

5. **Approximately what percentage of your Alberta workforce work shifts other than Monday to Friday, days?** ______%

6. **Approximately what percentage of your Alberta workforce worked overtime (paid or unpaid) in the last week?** ______%

7. **Approximately how many worksites do you have in Alberta?** ___________

8. **How many people work at the smallest worksite?** ____________

9. **Approximately what percentage of your employees belong to a union(s)?**

   1. *none*
   2. *less than 10%*
   3. *10 - 24%*
   4. *25 - 49%*
   5. *50 - 74%*
   6. *75% or more*

10. **Which of the following best indicates the total annual operating budget (i.e. expenditures) of your organization IN ALBERTA?**

    1. *less than $1 million*
    2. *$1 million to $4.9 million*
    3. *$5 million to $19.9 million*
    4. *$20 million to $99.9 million*
    5. *$100 million or more*

PREVALENCE AND PATTERNS OF SUBSTANCE USE

This section of the survey seeks information on the extent of substance use among the Alberta workforce and patterns of usage which may affect work performance. For the purpose of this research, substance use includes the use of alcohol, illicit drugs and other medications with psychoactive properties consumed in a manner which potentially influences the individual's performance at work.

1. **Over the last 4 WEEKS, which of the following substance use incidents have been brought to your attention either formally or informally? (NOTE: AN INCIDENT IS DEFINED AS ONE SINGLE OCCURRENCE INVOLVING ANY EMPLOYEE.)**

	no	yes	**If yes, how often did this occur?**				
			once	2-3 times	4-6 times	7-9 times	10+ times
An employee arrived late for work apparently due to substance use	☐	☐	☐	☐	☐	☐	☐
An employee missed a day of work apparently due to substance use	☐	☐	☐	☐	☐	☐	☐
An employee was sent home from work due to apparent impairment	☐	☐	☐	☐	☐	☐	☐
An employee was sent home from work due to a hangover	☐	☐	☐	☐	☐	☐	☐
An employee was caught using alcohol on the job	☐	☐	☐	☐	☐	☐	☐
An employee was caught using drugs on the job	☐	☐	☐	☐	☐	☐	☐
An on-call employee arrived at work apparently impaired	☐	☐	☐	☐	☐	☐	☐
An employee was assigned other duties for the day due to apparent impairment	☐	☐	☐	☐	☐	☐	☐
An employee was reassigned for a longer period due to substance use problems	☐	☐	☐	☐	☐	☐	☐
An employee made a lot of mistakes due to apparent impairment	☐	☐	☐	☐	☐	☐	☐
An employee took leave to undergo treatment for a substance use problem	☐	☐	☐	☐	☐	☐	☐
An employee's work pace was slowed due to impairment	☐	☐	☐	☐	☐	☐	☐
An employee was dismissed due to a substance use problem	☐	☐	☐	☐	☐	☐	☐
An employee was suspended due to a substance use problem	☐	☐	☐	☐	☐	☐	☐
An employee took extended sick leave to deal with a substance use problem	☐	☐	☐	☐	☐	☐	☐
An employee was injured on the job due to his/her impairment	☐	☐	☐	☐	☐	☐	☐
An impaired employee's actions resulted in injury to a co-worker	☐	☐	☐	☐	☐	☐	☐
An impaired employee's actions resulted in injury to someone outside the organization	☐	☐	☐	☐	☐	☐	☐
An impaired employee's actions resulted in accidental damage to equipment or property	☐	☐	☐	☐	☐	☐	☐
An employee with substance use problems was caught stealing company or client property	☐	☐	☐	☐	☐	☐	☐
An employee with substance use problems was suspected of sabotaging equipment	☐	☐	☐	☐	☐	☐	☐
Two or more workers got into a fight due to substance use	☐	☐	☐	☐	☐	☐	☐
An impaired employee was the subject of a customer or client complaint	☐	☐	☐	☐	☐	☐	☐

2. **Please indicate whether the following apply to your organization:**

	Never	Sometimes	Almost always	Don't know
Alcohol is served at organization functions	☐	☐	☐	☐
Alcohol is served on the organization's premises, on special occasions	☐	☐	☐	☐
Alcohol is regularly served on the organization's premises	☐	☐	☐	☐
Alcohol is permitted on the premises	☐	☐	☐	☐
Alcohol is readily available near our main worksite(s)	☐	☐	☐	☐
Street drugs are available near our main worksite(s)	☐	☐	☐	☐
Co-workers go for a drink together after work	☐	☐	☐	☐
Co-workers socialize with each other	☐	☐	☐	☐
Co-workers go for a drink together at lunch	☐	☐	☐	☐

3. **In your opinion, how serious a problem is employee alcohol use for your ORGANIZATION?**

   1. *extremely serious*
   2. *moderately serious*
   3. *not very serious*
   4. *don't know*

4. **In your opinion, how serious a problem is employee alcohol use for your INDUSTRY?**

   1. *extremely serious*
   2. *moderately serious*
   3. *not very serious*
   4. *don't know*

5. **In your opinion, how serious a problem is employee drug use for your ORGANIZATION?**

   1. *extremely serious*
   2. *moderately serious*
   3. *not very serious*
   4. *don't know*

6. **In your opinion, how serious a problem is employee drug use for your INDUSTRY?**

   1. *extremely serious*
   2. *moderately serious*
   3. *not very serious*
   4. *don't know*

7. **Managers must contend with a number of human resource issues. Please rank the top 3 human resource issues in order of their importance to your organization, with 1 as the most important, 2 as the second most important and 3 as the third most important.**

____ *drug use among the workforce*

____ *alcohol use among the workforce*

____ *re-organizing or redesigning jobs to improve product or service quality*

____ *workforce training and development*

____ *rightsizing or downsizing the organization*

____ *linking pay to employees' performance*

____ *workforce literacy and numeracy*

____ *recruitment of skilled workers*

____ *ensuring workplace health and safety*

____ *implementing flexible work schedules to enable workers to balance personal and family responsibilities*

____ *other (PLEASE SPECIFY)* ____________________

8. **In your opinion, to what extent do each of the following work design characteristics contribute to the incidence of substance use problems on the job?**

	To a great extent	To a moderate extent	To a small extent	Not at all	Don't Know/not applicable
Shiftwork	☐	☐	☐	☐	☐
Shift rotations	☐	☐	☐	☐	☐
Long work hours, including overtime	☐	☐	☐	☐	☐
Boredom on the job	☐	☐	☐	☐	☐
Repetitive tasks	☐	☐	☐	☐	☐
On-call situations	☐	☐	☐	☐	☐
Worksites which are isolated	☐	☐	☐	☐	☐
Lack of recreation facilities at remote worksites or layover points	☐	☐	☐	☐	☐
Having a bar/liquor store near the worksite	☐	☐	☐	☐	☐
Work requiring extensive periods away from home	☐	☐	☐	☐	☐
Having to entertain clients	☐	☐	☐	☐	☐
Being entertained by others	☐	☐	☐	☐	☐
Lack of close supervision	☐	☐	☐	☐	☐
Availability of hiding places in the worksite	☐	☐	☐	☐	☐
Stress on the job	☐	☐	☐	☐	☐
Other (PLEASE SPECIFY) ____________________	☐	☐	☐	☐	☐

WORKPLACE IMPACTS OF SUBSTANCE USE

1. **Which of the following best describes the LARGEST occupational group in your organization? [CIRCLE ONE ONLY.]**

    1. *manager (plans/organizes/directs/controls functions of a department/division/program/regional office/other unit)*
    2. *professional (teacher, nurse, doctor, engineer, dentist, accountant etc)*
    3. *clerical/office worker*
    4. *sales (selling/buying commodities, selling services, wholesale and retail businesses)*
    5. *service (providing protection, catering, accommodation, assistance, funeral service, hair styling, beauty treatments, personal services, washing or cleaning, operating elevators, minor maintenance repairs, technical support, etc.)*
    6. *primary occupations (upstream oil and gas, fishing/hunting/trapping and related occupations; forestry and logging operations; mining/quarrying.)*
    7. *processing (refining, mixing, compounding, chemically treating, conditioning, or otherwise treating materials for direct use; or to produce semi-finished materials for further machining or fabricating; or to produce finished products such as bricks, tiles, processed food, newsprint, lumber, plywood and cloth)*
    8. *construction (erecting, repairing and maintaining buildings and other works)*
    9. *transportation equipment operating (truck driver, bus driver, airline pilot etc)*
    10. *materials handling (occupations not elsewhere classified concerned with moving, lifting, loading, and packaging materials and products)*
    11. *other (PLEASE SPECIFY)* ____________________

2. **Please consider the OCCUPATIONAL GROUP INDICATED ABOVE. If, for any reason, an employee did not perform his/her job well, how much chance, if any, would there be of the employee. . .**

	No chance	Very slight chance	Moderate chance	Quite a good chance
Injuring him/herself	☐	☐	☐	☐
Injuring a co-worker	☐	☐	☐	☐
Injuring someone outside the organization	☐	☐	☐	☐
Damaging/polluting the environment	☐	☐	☐	☐
Damaging the company's equipment or property	☐	☐	☐	☐
Hurting the reputation of the organization	☐	☐	☐	☐
Causing the organization to lose a lot of money	☐	☐	☐	☐

3. In general, how concerned are you about the effects of substance use in your organization in terms of:

	Not concerned at all	Somewhat concerned	Very concerned
Absenteeism	☐	☐	☐
Tardiness	☐	☐	☐
Productivity	☐	☐	☐
Quality of product or service	☐	☐	☐
Turnover	☐	☐	☐
Employee health (mental and physical)	☐	☐	☐
Employee safety	☐	☐	☐
Public safety	☐	☐	☐
Equipment damage	☐	☐	☐
Employee theft	☐	☐	☐
Employee sabotage	☐	☐	☐
Organization's public image	☐	☐	☐
Organization's reputation	☐	☐	☐

4. There are a number of costs which could be associated with substance use in the workplace. Please rank the top 3 cost categories in terms of their significance in your organization, with 1 as the most costly, 2 as the second most costly and 3 as the third most costly. If you are not at all concerned about substance use, please skip to the next section.

___ *wages paid to workers who are absent from work due to a substance use problem*
___ *cost of temporary workers to replace absent workers*
___ *lost production from absenteeism or work slowdowns due to a substance use problem*
___ *expenses associated with substance use education/prevention programs in the workplace*
___ *expenses associated with treatment of substance use problems*
___ *loss of valued customers/clients due to a reduction in the quality of a product or service*
___ *cost of insurance*
___ *other (PLEASE SPECIFY)* ____

RESPONSE OPTIONS

1. **What would be your organization's usual response on first realizing an employee had a substance use problem? [CHECK ALL THAT APPLY]**

____ *refer for professional counselling/medical treatment*
____ *counselling by supervisor*
____ *reassign to a less sensitive area, but otherwise wait and see*
____ *do nothing*
____ *terminate as quickly as possible*

[SKIP TO 3]

____ *progressive discipline: warnings, suspension and termination*

2. **Please indicate the type of disciplinary action your organization would likely take for each of the following incidents. . . (assume this was the first such incident for the employee)**

	No Action	Warning	Suspension of one day or less	Suspension of more than one day but less than 1 week	Suspension of more than one week	Dismissal
An employee showed up for work drunk or high	☐	☐	☐	☐	☐	☐
An employee showed up for work hungover	☐	☐	☐	☐	☐	☐
An employee was involved in an ***accident*** *in which* ***alcohol*** *was suspected to have played a role and which damaged property, but in which* ***no harm*** *came to anyone (employee or public)*	☐	☐	☐	☐	☐	☐
An employee was involved in a ***near miss*** *in which* ***alcohol*** *was suspected to have played a role*	☐	☐	☐	☐	☐	☐
An employee was involved in an ***accident*** *in which* ***alcohol*** *was suspected to have played a role, and which resulted in injury to an employee or member of the public*	☐	☐	☐	☐	☐	☐
An employee was involved in an ***accident*** *in which* ***drugs*** *were suspected to have played a role and which damaged property, but in which* ***no harm*** *came to anyone (employee or public)*	☐	☐	☐	☐	☐	☐
An employee was involved in a ***near miss*** *in which* ***drugs*** *were suspected to have played a role*	☐	☐	☐	☐	☐	☐
An employee was involved in an ***accident*** *in which* ***drugs*** *were suspected to have played a role, and which resulted in injury to an employee or member of the public*	☐	☐	☐	☐	☐	☐

3. **If an employee were sent down home from work due to apparent impairment, would your company...**
   1. *escort the individual home?*
   2. *allow the individual to go home on his/her own?*

4. **Which of the following would most likely occur in the event that a worker required treatment for a substance problem? [CIRCLE ONE ONLY]**
   1. *offer of sick leave (with partial pay)*

   2. *offer of short term leave without pay*
   3. *offer of sick leave (with full pay)*
   4. *suspension of the employee*
   5. *dismissal of the employee*
   6. *don't know*

   [SKIP TO 6]

5. **What percentage of current take home pay would the worker receive?** _____%

6. **Do you have any formal policies regarding substance use in the workplace?**
   1. *yes*
   2. *no* --> **[SKIP TO QUESTION 8]**

7. **Which of the following are included in your organization's policies regarding substance use in the workplace?**

			For each policy used, please indicate the effect on reducing substance use problems in the workplace.		
	Yes	No	Very useful	Somewhat useful	Not at all useful
Prohibition of substance use across the organization	☐	☐	☐	☐	☐
Training for supervisors in recognizing substance use problems	☐	☐	☐	☐	☐
Training for supervisors in helping employees see their substance use problem	☐	☐	☐	☐	☐
Training for all employees related to preventing substance use problem	☐	☐	☐	☐	☐
Provision of sick leave for employees undergoing treatment	☐	☐	☐	☐	☐
Provision to reassign employees facing substance use problems	☐	☐	☐	☐	☐
Security procedures to prevent the presence of drugs in the workplace (other than drug testing)	☐	☐	☐	☐	☐
Progressive discipline to deal with substance use problems in the workplace	☐	☐	☐	☐	☐
Information sessions for all employees on the organization's substance use policies	☐	☐	☐	☐	☐
Promotion of workplace wellness (or health promotion in the workplace)	☐	☐	☐	☐	☐
Provision of a smoke-free workplace	☐	☐	☐	☐	☐

8. **Does your organization have a drug testing program?**

   1. *yes*
   2. *no* --> **[SKIP TO QUESTION 13]**

9. **Does your drug testing program include testing for alcohol?**

   1. *yes*
   2. *no*

10. **Which of the following components are included in your drug testing program?**

	Yes	No	Don't know
Random drug testing of all employees	☐	☐	☐
Random testing of a defined set of employees	☐	☐	☐
Drug testing after an accident or incident	☐	☐	☐
Drug testing after a near miss	☐	☐	☐
Drug testing on referral by a supervisor who has noticed performance problems	☐	☐	☐
Pre-employment testing	☐	☐	☐
Periodic medicals	☐	☐	☐

11. **How effective has the drug testing program been in terms of its effect on reducing ALCOHOL use problems in the workplace? [CIRCLE ONE]**

    1. *very effective*
    2. *somewhat effective*
    3. *no noticeable effect*
    4. *don't know*

12. **How effective has the drug testing program been in terms of its effect on reducing DRUG use in the workplace?**

    1. *very effective*
    2. *somewhat effective*
    3. *no noticeable effect*
    4. *don't know*

13. **Do employees in your organization have access to an Employee Assistance Program (EAP) sponsored by the organization?**

    1. *yes*
    2. *no* --> [SKIP TO QUESTION 20]

14. **How is the EAP program funded? [CIRCLE ONE]**

    1. *the employer alone*
    2. *employees and the employer*
    3. *employees only*

15. **Is there an employee advisory or steering committee overseeing the EAP program? [CIRCLE ONE]**

    1. *yes*
    2. *no*
    3. *don't know*

16. **Is the assistance program . . . [CIRCLE ONE]**

    1. *focused on substance use problems?*
    2. *a broad brush program, covering many employee problems?*
    3. *don't know*

17. **What is the annual budget of the assistance program?** $__________

18. **How are employees referred to your organization's assistance program? [CIRCLE ALL THAT APPLY]**

    1. *supervisor referral*
    2. *co-workers referral*
    3. *self-referral*
    4. *results of drug testing*
    5. *other*
    6. *don't know*

19. Who is eligible for your assistance program? [CIRCLE ALL THAT APPLY]

1. *current full-time employees*
2. *current part-time employees*
3. *retired employees*
4. *employees' family members*
5. *other (PLEASE SPECIFY)*____________________________
6. *don't know*

[SKIP TO QUESTION 21]

20. Which of the following best describes why your organization does not have an assistance program? [CIRCLE ALL THAT APPLY]

1. *we are too small*
2. *we cannot afford it*
3. *we don't think we need one*
4. *our employees are scattered over too many worksites*
5. *other (PLEASE SPECIFY)*__________________________
6. *don't know*

21. Do employees in your organization have access to a Members Assistance Program (MAP) sponsored by a union or employee association?

1. *yes*
2. *no* --> **[SKIP TO QUESTION 25]**

22. How is the MAP program funded? [CIRCLE ONE]

1. *the union/association and the employer*
2. *the union/association alone*
3. *don't know*

23. Is there an employee advisory committee overseeing the MAP program? [CIRCLE ONE]

1. *yes*
2. *no*
3. *don't know*

24. Is the MAP . . . [CIRCLE ONE]

1. *focused on substance use problems?*
2. *a broad brush program, covering many employee problems?*
3. *don't know*

25. Does your organization assist employees who are returning to the workforce following treatment for a substance use problem? [CIRCLE ONE ONLY]

1. *yes*

2. *no*
3. *don't know*
4. *not applicable*

[SKIP TO QUESTION 27]

26. Which of the following approaches do you use? [CIRCLE ALL WHICH APPLY]

1. *follow-up or aftercare program in the workplace*
2. *time off for on-going treatment*
3. *reassignment to other work areas*
4. *coaching/training of co-workers and supervisors*
5. *other (PLEASE SPECIFY)*________________________________

27. Does more need to be done to deal with substance use in the workplace in Alberta?

1. *Yes*
2. *No* --> [SKIP TO COMMENTS AT THE END OF THE SURVEY]

28. Which of the following actions would you recommend in responding to alcohol/drug problems in the workplace in Alberta? [CIRCLE ALL WHICH APPLY]

1. *promote "substance-free" workplaces through the media*
2. *provide promotional materials for workplace wellness programs*
3. *provide information on substance use in the workplace*
4. *provide model policies on substance use in the workplace*
5. *provide materials to train supervisors/managers in identifying and dealing with substance use problems*
6. *provide more opportunities for workers to undergo residential treatment without threat of job loss*
7. *provide more opportunities for workers to undergo out-patient treatment without threat of job loss*
8. *drug testing*
9. *other (PLEASE SPECIFY)* ____

29. Which ONE action is most important? [CIRCLE ONE ONLY]

1. *promote "substance-free" workplaces through the media*
2. *provide promotional materials for workplace wellness programs*
3. *provide information on substance use in the workplace*
4. *provide model policies on substance use in the workplace*
5. *provide materials to train supervisors/managers in identifying and dealing with substance use problems*
6. *provide more opportunities for workers to undergo residential treatment without threat of job loss*
7. *provide more opportunities for workers to undergo out-patient treatment without threat of job loss*
8. *drug testing*
9. *other (PLEASE SPECIFY)* ____________________

30. Who should be involved in dealing with substance use in the workplace? [CIRCLE ALL THAT APPLY]

1. *employers*
2. *unions/employee associations*
3. *workers/employees*
4. *worker/employee committees*
5. *worker/management committees*
6. *community groups*
7. *industry associations*
8. *medical/ health care professionals*
9. *government (SPECIFY: ____________________)*
10. *educational institutions*
11. *professional associations*

31. Who should take the lead role? [CIRCLE ONE ONLY]

1. *employers*
2. *unions/employee associations*
3. *workers/employees*
4. *worker/employee committees*
5. *worker/management committees*
6. *community groups*
7. *industry associations*
8. *medical/ health care professionals*
9. *government*
10. *educational institutions*
11. *professional associations*

COMMENTS

If your organization would like a copy of the summary report of our research, please complete and return the attached form under separate cover to:

Denise Loewen
Price Waterhouse
2401 Toronto Dominion Tower
Edmonton Centre
Edmonton, Alberta
T5J 2Z1

UNION SURVEY

Purpose of this survey...

Price Waterhouse is conducting a survey of unions, employers and the general workforce in Alberta for the Alberta Alcohol and Drug Abuse Commission (AADAC). The primary purpose of the survey is to assess the impact of alcohol and/or other drug use on the Alberta workplace. The results will be used in planning policies and programs to assist workers, unions and employers in handling substance use problems which affect the workplace. For example, it will provide good information to educate people on the extent of the problem and on suitable responses.

Confidentiality...

All information about you and your union will be kept completely confidential by Price Waterhouse. We will report only summary information. No information on individual responses will be reported. Please do not put your name or the name of your union on the questionnaire.

Instructions...

The questionnaire is divided into several sections. Please read the questions carefully, and follow the instructions shown or by checking a box. Most of the questions can be answered by simply circling the number that corresponds to the response you select. As a union leader, you are in a good position to speak for your union on these points. You may, however, want to ask one of your colleagues to assist you in completing the survey. If your union local received more than one copy of the survey, please discard any extra copies.

For assistance...

If you have any questions about the survey, or if the instructions are not clear, please call Price Waterhouse collect at (403)493-8200 and ask for Denise Loewen or at (403)267-1200 and ask for Norm Stein. You can also fax your question to (403)428-8069, attention Denise Loewen.

You can also call Ed Sawka or Garry Vinje at AADAC if you have questions about the survey. To call AADAC without charge, call the provincial government's regional information telephone inquiry number (also known as the R.I.T.E. system) listed in the telephone directory under "Government of Alberta". Ask the provincial operator to connect you to 427-4275 Edmonton. Individuals in the Edmonton area, or living in communities not served by the RITE system, should call AADAC direct at 427-4275.

Upon completion...

Once you have completed the questionnaire, please return it using the enclosed pre-addressed, stamped envelope.

Deadline...

Please return the questionnaire by August 16, 1991.

THANK YOU FOR YOUR PARTICIPATION!

BACKGROUND

This section asks for some background information on your union. It will help us understand the different situations Alberta unions face.

1. **Where is your local union headquartered? [CIRCLE ONE ONLY]**

    1. *in Alberta*
    2. *outside Alberta, but within Canada*
    3. *outside Canada*

2. **Approximately how many members does your local union have IN ALBERTA?** ______*members*

3. **Approximately what percentage of your Alberta members work in each of the following industries?**

    ___ *agriculture*
    ___ *upstream oil and gas, including exploration, drilling, servicing, well operations and gas plants*
    ___ *forestry*
    ___ *mining*
    ___ *manufacturing and processing, including saw mills, pulp, paper, oil and gas and food processing*
    ___ *construction*
    ___ *transportation*
    ___ *telecommunications, broadcasting*
    ___ *utilities*
    ___ *wholesale and retail trade*
    ___ *finance, insurance, real estate*
    ___ *education (including schools and universities)*
    ___ *hospitals, health care*
    ___ *social services*
    ___ *other services*
    ___ *public administration*
    ___ *other (PLEASE SPECIFY)* ______________________________

    ___
    100%

4. **What percentage of your Alberta members work in each of the following occupational groups?**

___ *professional (engineer, teacher, nurse, etc)*

___ *clerical/office worker*

___ *sales (selling/buying commodities, selling services, wholesale and retail businesses)*

___ *service (providing protection, catering, accommodation, assistance, funeral service, hair styling, beauty treatments, personal services, washing or cleaning, operating elevators, minor maintenance repairs, etc.)*

___ *primary occupations (upstream oil and gas, fishing/hunting/trapping and related occupations; forestry and logging operations; mining/quarrying.)*

___ *processing (refining, mixing, compounding, chemically treating, conditioning, or otherwise treating materials for direct use; or to produce semi-finished materials for further machining or fabricating; or to produce finished products such as bricks, tiles, processed food, newsprint, lumber, plywood and cloth)*

___ *construction (erecting, repairing and maintaining buildings and other works)*

___ *transportation equipment operating (truck driver, bus driver, airline pilot etc)*

___ *materials handling (occupations not elsewhere classified concerned with moving, lifting, loading, and packaging materials and products)*

___ *other crafts/trade*

___ *other (PLEASE SPECIFY)* ______________________________

___

100%

PREVALENCE AND PATTERNS OF SUBSTANCE USE

This section of the survey seeks information on the extent of substance use among the Alberta workforce and patterns of usage which may affect work performance. For the purpose of this research, substance use includes the use of alcohol, illicit drugs and other medications with psychoactive properties consumed in a manner which potentially influences the individual's performance at work.

1. **Over the last 4 WEEKS, have any of the following incidents been brought to your attention either formally or informally? (NOTE: AN INCIDENT IS DEFINED AS ONE SINGLE OCCURRENCE.)**

	No	Yes	**If yes, how often?**				
			Once	2-3 times	4-6 times	7-10 times	More than 10 times
A member arrived late for work which you suspect was due to substance use	☐	☐	☐	☐	☐	☐	☐
A member missed a day of work which you suspect was due to substance use	☐	☐	☐	☐	☐	☐	☐
A member was sent home from work due to apparent impairment	☐	☐	☐	☐	☐	☐	☐
A member was sent home from work due to an apparent hangover	☐	☐	☐	☐	☐	☐	☐
A member was caught using alcohol on the job	☐	☐	☐	☐	☐	☐	☐
A member was caught using drugs on the job	☐	☐	☐	☐	☐	☐	☐
An on-call member arrived at work apparently impaired	☐	☐	☐	☐	☐	☐	☐
A member was assigned other duties for the shift due to apparent impairment	☐	☐	☐	☐	☐	☐	☐
A member was reassigned for a longer period due to apparent substance use problems	☐	☐	☐	☐	☐	☐	☐
A member made a lot of mistakes due to apparent impairment	☐	☐	☐	☐	☐	☐	☐
A member took leave to undergo treatment for an apparent substance use problem	☐	☐	☐	☐	☐	☐	☐
A member worked at a slow pace due to apparent impairment	☐	☐	☐	☐	☐	☐	☐
A member was dismissed due to an apparent substance use problem	☐	☐	☐	☐	☐	☐	☐
A member was suspended due to an apparent substance use problem	☐	☐	☐	☐	☐	☐	
A member was injured on the job due to his/her impairment	☐	☐	☐	☐	☐	☐	☐
An impaired member's actions resulted in injury to a co-worker	☐	☐	☐	☐	☐	☐	☐
An impaired member's actions resulted in injury to someone outside the organization	☐	☐	☐	☐	☐	☐	☐
An impaired member's actions resulted in accidental damage to equipment or property	☐	☐	☐	☐	☐	☐	☐
A member with apparent substance use problems was caught stealing company or client property	☐	☐	☐	☐	☐	☐	☐
A member with apparent substance use problems was suspected of sabotaging equipment	☐	☐	☐	☐	☐	☐	☐
Two or more members got into a fight apparently due to substance use	☐	☐	☐	☐	☐	☐	☐

2. **Please indicate whether the following generally apply in the organizations where your members work:**

	Never	Some-times	Almost always	Don't know
Alcohol is served at company functions	☐	☐	☐	☐
Alcohol is served on the company's premises, on special occasions	☐	☐	☐	☐
Alcohol is regularly served on the organization's premises	☐	☐	☐	☐
Alcohol is permitted on the premises	☐	☐	☐	☐
Alcohol is readily available near main worksite(s)	☐	☐	☐	☐
Street drugs are available near main worksite(s)	☐	☐	☐	☐
Work teams go for a drink together after work	☐	☐	☐	☐
Co-workers socialize with each other	☐	☐	☐	☐
Alcohol is served at union functions	☐	☐	☐	☐
Alcohol is served on the union premises	☐	☐	☐	☐

3. **In your opinion, how serious a workplace problem is alcohol use FOR YOUR MEMBERS? [CIRCLE ONE ONLY]**

   1. *extremely serious*
   2. *moderately serious*
   3. *not serious*
   4. *don't know*

4. **In your opinion, how serious a workplace problem is alcohol use FOR ALBERTA WORKERS IN GENERAL? [CIRCLE ONE ONLY]**

   1. *extremely serious*
   2. *moderately serious*
   3. *not serious*
   4. *don't know*

5. **In your opinion, how serious a workplace problem is drug use FOR YOUR MEMBERS? [CIRCLE ONE ONLY]**

   1. *extremely serious*
   2. *moderately serious*
   3. *not serious*
   4. *don't know*

6. **In your opinion, how serious a workplace problem is drug abuse FOR ALBERTA WORKERS IN GENERAL?**

   1. *extremely serious*
   2. *moderately serious*
   3. *not serious*
   4. *don't know*

7. **What issues are the most important to your members? Please rank the three most important items in terms of their importance to your members. Rank 1 as the most important, 2 as the second most important and 3 as the third most important.**

   ___ *job security*

   ___ *need for counselling services*

   ___ *general job training*

   ___ *technological change*

   ___ *work schedules*

   ___ *a smoke-free workplace*

   ___ *controlling drug use in the workplace*

   ___ *controlling alcohol use in the workplace*

   ___ *workplace health and safety*

   ___ *other (PLEASE SPECIFY)* ______________________________

8. **In your opinion, to what extent do each of the following work design characteristics contribute to substance use problems in the workplace?**

	To a great extent	To a moderate extent	To a small extent	Not at all	Don't Know/not applicable
Shiftwork	☐	☐	☐	☐	☐
Shift rotations	☐	☐	☐	☐	☐
Long work hours, including overtime	☐	☐	☐	☐	☐
Boredom	☐	☐	☐	☐	☐
Repetitive tasks	☐	☐	☐	☐	☐
On-call situations	☐	☐	☐	☐	☐
Worksites which are remote from home	☐	☐	☐	☐	☐
Lack of recreation facilities at remote worksites	☐	☐	☐	☐	☐
Having a bar/liquor store near the worksite	☐	☐	☐	☐	☐
Work requiring extensive travel	☐	☐	☐	☐	☐
Lack of close supervision	☐	☐	☐	☐	☐
Availability of hiding places in the worksite	☐	☐	☐	☐	☐
Stress on the job	☐	☐	☐	☐	☐
Other (PLEASE SPECIFY) ____________________	☐	☐	☐	☐	☐

WORKPLACE IMPACTS

1. **Please consider the LARGEST occupational group in your membership. If, for any reason, a member did not do this job well, how much chance, if any, would there be of the worker . . .**

	No chance	Very slight chance	Moderate chance	Quite a good chance
Injuring him/herself	☐	☐	☐	☐
Injuring a co-worker	☐	☐	☐	☐
Injuring someone outside the organization	☐	☐	☐	☐
Damaging/polluting the environment	☐	☐	☐	☐
Damaging the company's equipment or property	☐	☐	☐	☐
Hurting the reputation of the organization	☐	☐	☐	☐
Causing the organization to lose a lot of money	☐	☐	☐	☐

2. **How concerned are you about the effect of substance use in the workplace? Please indicate your concern in terms of each of the following areas:**

	Not concerned at all	Somewhat concerned	Very concerned
Quality of work life	☐	☐	☐
Worker health	☐	☐	☐
Worker safety	☐	☐	☐
Co-worker safety	☐	☐	☐
Public safety	☐	☐	☐
Union image	☐	☐	☐
The environment	☐	☐	☐

RESPONSE OPTIONS

1. **Please indicate the type of disciplinary action which your union would consider appropriate for each of the following incidents. . . (assume this was the first such incident for the member)**

	Nothing	Warning	Suspension of one day or less	Suspension of more than one day but less than 1 week	Suspension of more than one week	Dismissal
The member showed up for work apparently drunk or high	☐	☐	☐	☐	☐	☐
The member showed up for work apparently hungover	☐	☐	☐	☐	☐	☐
*The member was involved in an **accident** in which **alcohol** was suspected to have played a role and which damaged property, but in which **no harm** came to anyone*	☐	☐	☐	☐	☐	☐
*The member was involved in a **near miss** in which **alcohol** was suspected to have played a role*	☐	☐	☐	☐	☐	☐
*The member was involved in an **accident** in which **alcohol** was suspected to have played a role, and which resulted in injury to another employee or the public*	☐	☐	☐	☐	☐	☐
*The member was involved in an **accident** in which **drugs** were suspected to have played a role and which damaged property, but in which **no harm** came to anyone*	☐	☐	☐	☐	☐	☐
*The member was involved in a **near miss** in which **drugs** were suspected to have played a role*	☐	☐	☐	☐	☐	☐
*The member was involved in an **accident** in which **drugs** were suspected to have played a role, and which resulted in injury to another employee or the public*	☐	☐	☐	☐	☐	☐

2. **Do your collective agreements cover or do members' employers generally have policies dealing with substance use in the workplace?**

   1. yes
   2. no --> **[SKIP TO QUESTION 4]**

3. **Which of the following are typically included in these policies? [CIRCLE ALL THAT APPLY]**

   1. prohibition of substance use across the organization
   2. training for members in recognizing substance use problems
   3. training for all employees related to preventing substance use problems
   4. provision of sick leave for employees undergoing treatment
   5. provision to reassign employees facing substance use problems
   6. security procedures to prevent the presence of drugs in the workplace
   7. progressive discipline to deal with substance use problems in the workplace
   8. information sessions for all employees on the organization's substance use policies
   9. promotion of workplace wellness (health promotion in the workplace)
   10. provision of a smoke-free workplace
   11. provision of smoking areas for lunch and coffee breaks

4. **The question of drug testing in the workplace is a very sensitive and controversial issue. It is important to find out how extensive drug testing is at present. Is drug testing conducted in any workplaces where you have members?**

   1. yes
   2. no --> **[SKIP TO QUESTION 7]**

5. **Does the testing program include alcohol testing?**

   1. yes
   2. no

6. **Which of the following components are included in this drug testing program? [CIRCLE ALL THAT APPLY]**

   1. *random drug testing of all workers*
   2. *random testing of a defined set of workers*
   3. *drug testing after an accident*
   4. *drug testing after a near miss*
   5. *drug testing on referral by a supervisor who has noticed performance problems*
   6. *pre-employment testing*

7. **Does your union sponsor a Member Assistance Program (MAP)?**

   1. *yes*
   2. *no* --> [SKIP TO QUESTION 12]

8. **What is the annual budget for your MAP? $____________**

9. **In what areas does the MAP generally provide assistance? [CIRCLE ALL WHICH APPLY]**

   1. *drug or alcohol problems*
   2. *family problems*
   3. *financial problems*
   4. *legal problems*
   5. *all personal problems*
   6. *personal and other work-related problems*

10. **Who is eligible for assistance through your MAP? [CIRCLE ALL WHICH APPLY]**

    1. *current members*
    2. *retired members*
    3. *members' families*
    4. *other (PLEASE SPECIFY: ____________________________________)*

11. **How are members usually referred to your union's MAP? [CHOOSE ONE]**

    1. *union representative referral*
    2. *other members referral*
    3. *supervisory/employer referral*
    4. *self-referral*
    5. *other (PLEASE SPECIFY: ______________________________)*

[SKIP TO QUESTION 13]

12. **Why does your union not have a MAP program? [CIRCLE ALL THAT APPLY]**

    1. *we are too small*
    2. *we cannot afford it*
    3. *we don't think we need one*
    4. *our members are scattered over too many worksites and would be hard to reach*
    5. *other (PLEASE SPECIFY) ______________________________*
    6. *don't know*

13. **Apart from Member Assistance Programs sponsored by unions, some union members may have access to Employee Assistance programs, run by the employer. Do some members of your union have access to EAPs?**

    1. *yes*
    2. *no*

14. **What percentage of your membership have access EITHER to a MAP or an EAP? ______%**

15. **Which of the following would MOST LIKELY occur in the event that a member in your union required treatments for a substance problem? [CIRCLE ONE ONLY]**

    1. *offer of short term leave without pay*
    2. *offer of sick leave (with full pay)* **[SKIP TO 17]**
    3. *offer of sick leave (with partial pay)*
    4. *don't know*

16. **What percentage of current take home pay would the member receive? _____%**

    ____ *don't know*

17. In the event that a member took leave to undergo treatment, would he/she retain union membership and the associated benefits?

1. *yes*
2. *no*
3. *don't know*

18. Please rate each of the following employment policy options in terms of their likely effect on reducing alcohol or drug problems in the workplace.

	Very effective	Somewhat effective	Not at all effective	Don't know
Training for supervisors in recognizing substance use problems	☐	☐	☐	☐
Training for supervisors in helping workers see their substance use problem	☐	☐	☐	☐
Training for union stewards in recognizing and assisting members with substance use problems	☐	☐	☐	☐
Training for all employees related to preventing substance use problems	☐	☐	☐	☐
Provision of sick leave for employees undergoing treatment	☐	☐	☐	☐
Provision to reassign employees facing substance use problems	☐	☐	☐	☐
Security procedures to prevent the presence of alcohol and drugs in the workplace	☐	☐	☐	☐
Progressive discipline to deal with substance use problems in the workplace	☐	☐	☐	☐
Information sessions for all employees on the organization's substance use policies	☐	☐	☐	☐
Promotion of workplace wellness	☐	☐	☐	☐
Drug testing	☐	☐	☐	☐
Member or employee assistance programs	☐	☐	☐	☐

19. Does more need to be done to deal with substance use in the workplace?

1. *Yes*
2. *No* --> **[SKIP TO COMMENTS]**

20. **Which of the following actions would you recommend in responding to alcohol/drug problems in the workplace in Alberta? [CIRCLE ALL THAT APPLY]**

    1. *promote "substance-free" workplaces through the media*
    2. *provide promotional materials for workplace wellness programs*
    3. *provide information on substance use in the workplace*
    4. *provide model policies on substance use in the workplace*
    5. *provide materials to train supervisors/managers in identifying and dealing with substance use problems*
    6. *provide more opportunities for workers to undergo residential treatment for substance use without threat of job loss*
    7. *provide more opportunities for workers to undergo out-patient treatment for substance use without threat of job loss*
    8. *Other (PLEASE SPECIFY: ______________________________)*

21. **Which ONE action is most important? [CIRCLE ONE ONLY]**

    1. *promote "substance-free" workplaces in the media*
    2. *provide promotional materials for workplace wellness programs*
    3. *provide information on substance use in the workplace*
    4. *provide model policies on substance use in the workplace*
    5. *provide materials to train supervisors/managers in identifying and dealing with substance use problems*
    6. *provide more opportunities for workers to undergo residential treatment for substance use without threat of job loss*
    7. *provide more opportunities for workers to undergo out-patient treatment for substance use without threat of job loss*
    8. *Other (PLEASE SPECIFY: ______________________________)*

22. **Who should be involved in dealing with substance use in the workplace? [CIRCLE ALL THAT APPLY]**

    1. *employers*
    2. *unions*
    3. *workers*
    4. *worker committees*
    5. *joint labour management committees*
    6. *community groups*
    7. *industry associations*
    8. *medical/ health care professionals*
    9. *government (PLEASE SPECIFY: ______________________________)*
    10. *educational institutions*
    11. *professional associations*

23. Who should take the lead role? [CIRCLE ONE ONLY]

1. *employers*
2. *unions*
3. *workers*
4. *worker committees*
5. *joint labour management committees*
6. *community groups*
7. *industry associations*
8. *medical/ health care professionals*
9. *government*
10. *educational institutions*
11. *professional associations*

COMMENTS

If your union would like a copy of the summary report of our research, please complete and return the attached form under separate cover to:

Denise Loewen
Price Waterhouse
2401 Toronto Dominion Tower
Edmonton Centre
Edmonton, Alberta
T5J 2Z1

APPENDIX F

GLOSSARY

GLOSSARY

Substance use: alcohol, illicit drugs, and prescribed and over-the-counter (OTC) medications having psychoactive properties consumed in such a way (whether at work or outside of work) as to potentially influence the individual's performance in the workplace.

Workers: individuals 15 years and older active in the labour force; that is, employed and unemployed but looking for work.

Blue-collar occupations: primary, processing, construction, transportation, and materials handling.

White-collar occupations: manager, professional, clerical, sales, and service.

Small and medium size employers: employers of less than 100 employees. Large employers are defined as employers of 100 or more employees.

TERMINOLOGY REGARDING SUBSTANCE USE[1]

Current drinker: persons who consumed at least one drink in the 12 months preceding the survey.

Former drinker: persons who once drank but who have not had a drink in the 12 months prior to the survey.

Drink: one bottle of beer, one glass of draft, one glass of wine, one glass of wine cooler, or one drink of hard liquor with 44ml of alcohol.

Street drugs: illicit drugs such as marijuana, hashish, cocaine, crack, speed, LSD, PCP, heroin.

Other substances: licit drugs, including prescription and non-prescription or over-the-counter medications.

Heavy drinker: person who reports drinking more than a certain number of drinks in the week prior to the survey (11 for women, 14 for men); or a person who consumed five or more drinks on one occasion 52 or more times in the past year (once a week on average).

OCCUPATIONAL TERMINOLOGY[2]

General manager/manager: Plans, organizes, directs and controls functions of an industrial, commercial, governmental, or other establishment through departmental managers and other subordinate executives, and within powers delegated by a governing body. Plans, organizes, directs and controls the activities of a department, division, program, regional office or other unit of an industrial, commercial, governmental or other establishment, through subordinates who are at a supervisory level or above, and within policies laid down by senior management.

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[1] from the NADS

[2] from the Canadian Classification and Dictionary of Occupations.

Clerical and related occupations: This major group includes occupations concerned with recording, transcribing and typing data; composing correspondence; classifying and filing publications, correspondence and similar material; organizing and recording financial and other data into accounts and quantitative records; paying and receiving money; operating office machines and electronic data-processing equipment; storing; distributing and accounting for stores of materials; receiving clients and providing information; operating telephone switchboards; distributing mail and delivering messages; and performing other clerical duties.

Sales occupations: This major group includes occupations concerned with selling commodities and services, buying commodities for resale, and conducting wholesale and retail businesses, on their own or owner's behalf or in partnership. Managing supervisors of individual chain stores and of departments in stores are in this major group.

Service occupations: This major group includes occupations concerned with providing protection against fire, crime, accidents, war, and other emergencies; providing catering services, including cooking, preparing and serving food and beverages; providing accommodation services; maintaining cleanliness in establishments, such as hotels, motels, lodging houses, and apartment and office buildings; escorting guests and handling baggage; preparing sleeping accommodation; arranging funeral, embalming and cemetery services; cutting and styling hair, and giving beauty treatments to patrons; providing personal services, such as caring for children, ushering, and arranging for people's comfort on tours, aboard ships and airplanes; washing, cleaning, drying, pressing, and dyeing apparel and textile furnishings; cleaning building interiors and equipment, operating elevators, and performing minor maintenance repairs; and providing other related services.

Farming, horticultural and animal-husbandry occupations: This major group includes occupations concerned with growing and harvesting crops and plants; raising animals, poultry and other birds; landscaping and maintaining parks, gardens and grounds; and providing agricultural services to farmers.

Fishing, hunting, trapping and related occupations: This major group includes occupations concerned with harvesting fish and other aquatic life from deep sea, coastal and inland waters; breeding fish; hunting whales and seals; and hunting and trapping wild animals or birds.

Forestry and logging occupations: This major group includes occupations concerned with the conservation of forests; the felling of timber; and the cutting and removing of logs and other products from forests.

Mining and quarrying including oil and gas field occupations: This major group includes occupations concerned with extracting mineral ores, crude petroleum, natural gas, water, coal, salt, peat moss, and other minerals from underground or open pit mines, quarries, and oil and gas fields.

Processing occupations: This major group includes occupations concerned with refining, mixing, compounding, chemically treating, conditioning or otherwise treating materials, such as ores, metals, clay, glass, stone, chemicals, petroleum, rubber, plastic, foods, beverages, paper, wood, textile fibres, hides, pelts and tobacco for direct use; or to produce semi-finished materials for further machining or fabricating; or to produce finished products, such as bricks, tiles, processed food, newsprint, lumber, plywood and cloth.

Construction trades occupations: This major group includes occupations concerned with erecting, repairing and maintaining buildings and other works such as bridges, highways, railways, airports, electrical power and communication lines, towers, waterways, and utility services.

Transport equipment operating occupations: This major group includes occupations concerned with operating transport equipment, such as aircraft, trains, ships, trucks and buses to move freight and passengers. Occupations engaged in direct support activities that are an integral part of the transportation of passengers and cargo are also classified in this major group.

Material-handling and related occupations, n.e.c.: This major group includes occupations, not elsewhere classified, concerned with moving, lifting, loading and packaging materials and products.

INDUSTRIAL TERMINOLOGY[3]

Agriculture: This industry division includes agricultural industries, service industries incidental to agriculture, and fishing and trapping industries.

Forestry: This division includes the logging industry and the forestry services industry.

Mining: This division includes mining industries, quarry and sand pit industries and service industries incidental to mineral extraction.

Upstream oil and gas: This division includes crude petroleum and natural gas industries (i.e., from extraction to refining).

Construction: This division includes building, developing and general contracting industries, industrial and heavy (engineering) construction industries, trade contracting industries and service industries incidental to construction.

Manufacturing and processing: This division includes refined petroleum and coal products industries, chemical and chemical products industries, food industries, beverage industries, tobacco products industries, rubber products industries, plastic products industries, leather and allied products industries, primary textile industries, textile products industries, clothing industries, wood industries, furniture and fixture industries, paper and allied products industries, printing, publishing and allied industries, primary metal industries, fabricated metal products industries (except machinery and transportation equipment industries), machinery industries (except electrical machinery), transportation equipment industries, electrical and electronic products industries, non-metallic mineral products industries and other manufacturing industries.

Transportation: This division includes transportation industries, pipeline transport industries and storage and warehousing industries.

Telecommunications, broadcasting: This division includes communication industries (i.e. telecommunication broadcasting industries, the telecommunication carriers industry, other telecommunication industries and postal and courier service industries).

Utilities: This division includes utility industries other than communications industries (i.e. the electric power systems industry, the gas distribution systems industry, the water systems industry and other utility industries).

Wholesale and retail trade: This division includes farm products industries, wholesale; petroleum products industries, wholesale; food, beverage, drug and tobacco industries, wholesale; apparel and dry goods industries, wholesale; household goods industries, wholesale; motor vehicle, parts and accessories industries, wholesale; metals, hardware, plumbing, heating and building materials industries, wholesale; machinery, equipment and supplies industries, wholesale; other products industries, wholesale; food, beverage and drug industries, retail; shoe, apparel, fabric and yarn industries, retail; household furniture, appliances and furnishings industries, retail; automotive vehicles, parts and accessories industries, sales and service; general retail merchandising industries; other retail store industries and non-store retail industries.

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[3] from the Standard Industrial Classification.

Finance, insurance and real estate: This division includes deposit accepting intermediary industries, consumer and business financing intermediary industries, investment intermediary industries, insurance industries, other financial intermediary industries, real estate operator industries (except developers) and insurance and real estate agent industries.

Education: This division includes educational services industries (i.e. elementary and secondary education, post-secondary non-university education, university education, library services, museums and archives and other educational services).

Hospitals and health care: This division includes health industries (i.e. hospitals; other institutional health services; non-institutional health services; offices of physicians, surgeons and dentist, private practice; offices of other health practitioners; medical and other health laboratories and health associations and agencies).

Social services: This division includes social service industries (i.e. non-institutional social services, offices of social services practitioners, other institutional social services and social service associations and agencies).

Other services: This division includes business service industries, accommodation service industries, food and beverage service industries, amusement and recreational service industries, personal and household service industries, membership organization industries and other service industries.

Public administration: This division includes federal government service industries, provincial and territorial government service industries, local government service industries and international and other extra-territorial government service industries.

APPENDIX G

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BIBLIOGRAPHY

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